

EMCSF 25.2 v4
EMRRR 25.2 v1

Phase IV Ponds Closure Plan

Volume 2

FMC Idaho, LLC
Pocatello, Idaho

FILED

August 1998
Revised May 2002



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Appendix I

APPENDIX I

CONSTRUCTION QUALITY ASSURANCE PLAN, TECHNICAL SPECIFICATIONS, DATA SHEETS, AND DRAWINGS

CONSTRUCTION QUALITY ASSURANCE PLAN

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Phase IV Ponds Construction Quality Assurance Plan

1. OBJECTIVE

This Construction Quality Assurance (CQA) Plan has been developed to ensure that the completed flexible membrane liner/composite liner cap system for the ponds meet or exceed all design criteria, plans, and specifications. This CQA plan also demonstrates that the guidance provided by the EPA ("Final Covers on Hazardous Waste Landfills and Surface Impoundments," EPA/530-SW-89-047, July 1989) for final cap covers has been followed. This plan will be used in monitoring and documenting the quality of material used and the construction practices employed in their placement. Deviations from this CQA plan, Specifications, Data Sheets, and Construction Drawings that are less stringent will require EPA concurrence prior to implementation.

Included in this plan, together with the technical specifications, are the submittals, approvals, inspections, observations, testing, and documentation required during the preconstruction, construction, and post-construction periods. These plan requirements are listed below.

Preconstruction

- Qualifications and authority of CQA Manager and Construction Inspector(s).
- Review and approval of material submittals and shop drawings.

Construction

- Conformance to excavation and fill construction sequence and extent specified in the specifications and drawings.
- Daily inspection reports and photographs.
- High density polyethylene (HDPE) liner testing.
- Grade checks.

Post-Construction

- Final inspection.
- Final documentation report.

2. RESPONSIBILITY AND AUTHORITY

2.1 Responsible Parties

The following parties will participate in Construction Quality Assurance (CQA) for the closure of ponds at FMC Idaho, LLC (FMC) phosphorus plant in Pocatello, Idaho.

2.1.1 Facility Owner

The facility owner is FMC Idaho, LLC (FMC). This entity is also the operator of the facility. FMC will be responsible for permitting, design, and construction of the closure. FMC will also contract for the construction of the closure at the appropriate time, provide a senior construction person (its own or contracted) to be in charge, supervise the CQA activities, and carry out future monitoring of the closure activities with its own or contracted forces.

2.1.2 Design Engineer/Construction Manager

Bechtel Environmental, Inc. (BEI) is the design engineer, and will also be acting as agent for FMC and serve as the construction manager for the closure and is referred to as "Bechtel" in the technical specifications. The technical documents produced during the design have been reviewed and approved by FMC and are part of the closure plan. They will later be included in a future contract between FMC and a Contractor when the closure is carried out. As construction manager, Bechtel is responsible for coordinating all construction activities. Where specified in the specifications, matters relating to CQA requiring Bechtel approval will require approval from the CQA officer and will be forwarded to the CQA officer for his approval.

2.1.3 CQA Personnel

Qualifications - A senior representative of FMC (FMC employee or contracted) will provide oversight during construction. This person also will select the CQA officer, responsible for implementing the CQA plan during construction. Responsibilities will include conducting inspections, reviewing documents and material certifications, and performing other activities as required to ensure the completed construction is in conformance with the requirements set forth in the technical specifications and design drawings. The CQA officer will be a registered professional civil or geotechnical engineer with sufficient practical, technical, and managerial experience to successfully oversee and implement CQA activities for installing cover systems

over hazardous waste facilities. The CQA officer will ensure that communication of all CQA-related matters is conveyed to and acted upon by the affected organizations.

The inspection staff will possess adequate formal training and sufficient practical, technical, and administrative experience to execute and record inspection activities successfully.

The CQA officer and inspector(s) will function independently of the Owner/Operator or Construction Contractor.

Authority - The CQA officer will report to FMC's senior representative and will serve as FMC's liaison with the construction Contractor. The construction inspector(s) will report directly to the CQA officer.

Responsibilities - The CQA officer is singularly responsible for all aspects of executing the CQA program. The officer will train the inspector(s) and direct, oversee, and check his (their) work. The construction inspector(s) will conduct the daily on-site observations, testing, and recordkeeping. The major areas of responsibilities include the following:

1. Serve as FMC's liaison with the Contractor in interpreting and clarifying drawings and specifications. (At the CQA Officer's discretion, the design engineer or other professional suited to perform this task may be designated as needed).
2. Approve submittals required by the technical specifications. Evaluate "equal" materials proposed for use by Contractor. (Product literature and certification can be used to provide that "equal" material meets or exceeds the specified material.) (At the CQA Officer's discretion, the design engineer or other professional suited to perform this task may be designated as needed).
3. Review panel layout shop drawings. Ensure that every effort is taken to minimize fields seams especially in critical areas. (At the CQA Officer's discretion, the design engineer or other professional suited to perform this task may be designated as needed).
4. Ensure that the Contractor's personnel comply with the site safety regulations. (At the CQA Officer's discretion, a health and safety professional suited to perform this task may be designated as needed).

5. Complete daily inspection reports that will provide a chronological framework of the project. These reports should include, as a minimum, those items specified in the technical specifications.
6. Confirm that the testing equipment, personnel and procedures do not change over time or that any changes do not result in a deterioration of the inspection process.
7. Provide to the FMC senior representative reports on the inspection results including:
 - Review and interpretations of observation records and test results.
 - Identification of work that the CQA officer believes should be accepted, rejected, or uncovered for observation, or that may require special testing, inspection, or approval.
 - Reports that reject defective work and specify corrective measures.
8. Verify that the Contractor's construction quality control plan is being followed.
9. Verify that the equipment used in testing meets the test requirements and that the tests are conducted by qualified personnel according to the procedures defined in the Contractor's quality control plan.
10. Monitor all tests conducted by the Contractor's personnel as may be required by the contract and/or the technical specifications.
11. Perform independent on-site inspection of the work in progress to assess compliance by the Contractor with the plans and specifications.
12. Report to the Contractor results of all observations and tests as the work progresses and interact with the Contractor to provide assistance in modifying the materials and work to comply with the specified design.
13. Accept or reject units of work.
14. Prepare the final CQA report. The objective of the CQA report is to provide a permanent record of the construction to assure regulatory agencies that the pond final cover system was constructed in accordance with the plans, specifications, and permit requirements. The detailed contents of the report are described in Section 5.2.

2.1.4 Construction Contractor

Responsibility - FMC will engage a Contractor to carry out the closure construction. The contract will stipulate the responsibility of the Contractor to comply with the quality assurance procedures, and to provide the appropriate documents, access, and opportunity to monitor the work. The Construction Contractor will be responsible for construction of the final cover system for the ponds, and inspecting and ensuring material delivered to the site for geosynthetic clay liner, flexible membrane liner, geonet and geotextile are in conformance with the material properties as specified in the construction specifications. The closure construction work shall be performed in strict accordance with plans and specifications, using the necessary construction procedures and techniques. The Contractor will submit its quality control plan to FMC for approval. The technical documents produced previously by the design engineer will specify the sampling and testing process to be carried out as the work progresses. This sampling and testing will be part of the Contractor's responsibilities as will the requirement to turn over copies of all sampling and testing results to the CQA officer.

Authority - The Construction Contractor has the authority to direct and manage its employees and the equipment they use to accomplish the construction.

2.2 Project Meetings

Frequent, planned meetings will be held to enhance communication between the parties involved. The structure of these meetings will be established by FMC, but will, as a minimum, consist of the following:

1. Preconstruction Meeting

A preconstruction meeting will be held at the site. The purpose of the preconstruction meeting is to:

- Review the responsibilities of each organization.
- Review lines of authority and communication for and between each organization.
- Discuss and establish the material submittal review process and time allowance required.
- Discuss the established protocol for observations and tests.

- Discuss the established protocol for handling construction deficiencies, repairs, and retesting.
- Review methods for documenting and reporting inspection data.
- Review methods for distributing and storing documents and reports.
- Review work area security and safety protocol.
- Discuss any modifications of the CQA plan to ensure that site-specific considerations are addressed.
- Discuss procedures for the protection of materials and for the prevention of damage from inclement weather or other events.
- Conduct a site walk-around to verify that the design plans and specifications are understood and to review material and equipment storage locations.

The meeting will be documented by a designated person and minutes will be transmitted to all parties.

2. Progress Meetings

Progress meetings will be held daily at the work area at an agreed-upon time. The purpose of the meetings is to:

- Review the previous day's activities and accomplishments.
- Review the work location and activities for the day.
- Identify the Contractor's personnel and equipment assignments for the day.
- Discuss any potential construction or safety problems.

These meetings will be documented.

3. Problem or Work Deficiency Meetings

Special meetings will be held when a problem or deficiency has occurred or is likely to occur. The purpose of the meeting is to define and resolve the problem or recurring work deficiency in the following manner:

- Define and discuss the problem or deficiency.
- Review alternative solutions.
- Implement a plan and schedule to resolve the problem or deficiency.

These meetings will be documented.

3. INSPECTION ACTIVITY

The closure construction work will be performed in accordance with detailed technical specifications. The specifications contain detailed requirements for submittals of material samples, methods of working, sampling, and testing. They also contain the required level of quality to be met by each type of work activity. The Contractor's responsibility includes providing details of work methods, carrying out the required sampling, and arranging for proper testing.

The types of work activity to be inspected include:

- Earthwork and Grading
 1. Inspect and ensure that operations for subgrade preparation, including compaction of existing surface to receive fill and fills for depression are performed in accordance with Specification No. S-4, Subsection 3.2.
 2. Inspect and ensure excavations for the anchor trench for the geosynthetic materials and drainage piping conform to Specification No. S-4, Subsection 3.3.
 3. Inspect and ensure operations for liner subgrade, anchor trench backfill and sand and slag for the cover protective layer are performed conforming to Specification No. S-4, Subsection 3.4
 4. Inspect and verify compaction requirements of slag fill are established in conformance with test section as specified in Specification S-4, Subsection 3.4.4.
 5. Inspect and ensure drainage piping and culverts, if required, are installed conforming to Specification S-4, Subsection 3.5.

6. Inspect and ensure installation of channels and ditches conform to Specification S-4, Subsection 3.6.
 7. Perform soil density testing in accordance with Specification S-4, Subsection 3.9.
- Geosynthetic Clay Liner (GCL)
 1. Visually inspect GCL for damage upon delivery to the site.
 2. Visually inspect GCL for damage prior to installation.
 3. Inspect and ensure surface to receive GCL is acceptable and has also been accepted by the installation Subcontractor.
 4. Inspect and ensure the installation of the GCL conforms to Specification S-5, Subsection 3.2.
 - Flexible Membrane Liner (FML)
 1. Visually inspect FML for damage upon delivery to the site.
 2. Visually inspect FML for damage prior to installation.
 3. Inspect and ensure the installation of the FML conforms to Specification S-6, Subsection 3.3.
 4. Inspect and ensure the installed FML are tested in conformance with Specification S-6, Subsection 3.4.
 - Temperature, Pressure and Gas Monitoring Systems, and Lift Stations
 1. Visually inspect piping materials for damage upon delivery to the site.
 2. Inspect and ensure the installations of the Temperature Monitoring Points conform to Specification S-9.
 3. Inspect and ensure instrumentations and lift stations are installed in conformance with manufacturers' installation instructions.

- Geonet and Geotextile
 - 1. Visually inspect geonet and geotextile for damage upon delivery to the site.
 - 2. Visually inspect geonet and geotextile for damage prior to installation.
 - 3. Inspect and ensure geonet and geotextile are installed in conformance with Specification S-7, Subsections 3.1 and 3.2 respectively.
 - 4. Inspect and ensure geotextiles are covered within the time limit as specified in Specification S-7, Subsection 3.3.
- Topsoil and Seeding
 - 1. Inspect and ensure seeding is performed within the periods as specified in Specification S-8, Subsection 1.6.
 - 2. Inspect and ensure topsoil and seed mixture conforms to Specification S-8, Subsection 2.2.
 - 3. Inspect and ensure surface to receive topsoil is acceptable prior to topsoil placement.
 - 4. Inspect and ensure topsoil areas are acceptable prior to seeding.
 - 5. Inspect and ensure topsoil and amendments are spread conforming to Specification S-8, Subsection 3.2.
 - 6. Inspect and ensure seeding is performed in conformance with Specification S-8, Subsections 3.3 through 3.5.
 - 7. Inspect and ensure seeded areas are acceptable after seed germination as specified in Specification S-8, Subsection 3.6.1.

An Independent Professional Engineer registered in the State of Idaho will inspect the work as they are performed to verify that closure of the pond(s) was conducted in conformance with the drawings and specifications. The Professional Engineer will perform site inspections during closure activities for closure certification purposes, as indicated in Table 1, and will sign the closure certification.

TABLE 1
CLOSURE INSPECTION/CERTIFICATION SCHEDULE

STAGE OF CLOSURE ACTIVITY	(APPROXIMATE) DAYS FROM BEGINNING OF CONSTRUCTION OF FINAL CAP
Completion of preparation of subgrade	45
During GCL placement and at completion	60 and 75
During FML placement, weld testing and completion	65 and 80
At completion of geonet and geofabric installation	90
At beginning, during compaction and at completion of installation of slag and filter layers	105, 120 and 135
At completion of top soil and permanent settlement monument installations	220

4. SAMPLING STRATEGIES

The sample numbers, frequencies, and methods to be followed in construction are detailed in the technical specifications and as outlined below:

- Earthwork testing and sampling to conform to Specification S-4, Subsection 3.9.1.
- GCL testing and sampling to conform to Specification S-5, Subsections 2.2.3 and 2.2.4.
- FML testing and sampling to conform to Specification S-6, Subsection 2.1.3 and 3.4.
- Geonet and Geotextile testing and sampling to conform to Specification S-7, Subsections 2.1.3 and 2.2.2 respectively.
- Minimum one sample of all supplied materials required for topsoil and seeding as specified in Specification S-8, Subsection 1.3(b)

5. DOCUMENTATION

5.1 Document Control

All CQA documents will be logged into a filing system, such that each document has a unique number and is filed sequentially. The system will maintain subject codes as needed for each document so as to permit searches by subject, date, etc.

5.2 Final Report

A final report of the closure will be prepared at completion of the closure. This report will contain all applicable documentation and will be certified correct by the CQA officer. Copies of the report will be filed with the permitting agency and also maintained at the facility.

Content - At a minimum, the report will contain:

1. General summary of work performed by the Contractor and his Subcontractors. Construction activities, observations, problems and corrective actions, deviations from design, etc. shall be included.
2. Daily inspection reports.
3. Manufacturer's literature and certification of materials used in the construction.
4. Test results and certification for soil tests performed and geosynthetic properties, including permeabilities, manufacturer testing data sheets, and welded seams.
5. Foundation acceptance form from lining Subcontractor.
6. Material samples.
7. Project photographs with dates and descriptions.
8. As-built drawings.
9. Certification from CQA officer that the document accurately represents the activities and findings of the CQA program.

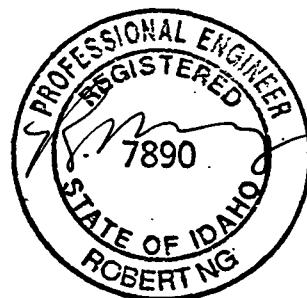
SPECIFICATIONS

FMC IDAHO, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

TECHNICAL SPECIFICATION
EARTHWORK AND GRADING



5-2-02

REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR			
0	5/2/02	ISSUED FOR CONSTRUCTION	RW	MJG	MS			
REV.	DATE	REASON FOR REVISION	JOB NO.	24230				
ORIGIN  SF-BEI		TECHNICAL SPECIFICATION EARTHWORK AND GRADING FINAL POND COVER	SPECIFICATION NO.					
			P4-S-4					
		REV. 0						
		SHEET 1 OF 17						

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1 GENERAL

This specification describes the requirements for grading of existing fill, and the materials and placement of a final cover over existing ponds at the FMC Idaho, LLC plant in Pocatello, Idaho. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

1.1 RELATED SPECIFICATIONS

The following specifications contain requirements that relate to this specification:

- a. P4-S-5 Geosynthetic Clay Liner
- b. P4-S-6 Flexible Membrane Liner
- c. P4-S-7 Geonet and Geotextile
- d. P4-S-8 Topsoil and Seeding
- e. P4-S-9 Temperature Monitoring Points (Wells)

1.2 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.

1.3 SUBMITTALS

The Contractor shall submit the following documents for Bechtel's approval and acceptance prior to mobilization:

- a. Fill placement method and plan.
- b. Material certifications for concrete components, and drainage and culvert piping systems, including cement, aggregate, welded wire fabric, and piping materials.

2 EQUIPMENT AND MATERIALS

2.1 EQUIPMENT

Conventional earth-moving equipment shall be used for the construction of the final cover, including low-ground-pressure (LGP) equipment as required and needed for the placement of the initial soil layer over geosynthetic materials, or other equipment as approved by Bechtel. All equipment shall be decontaminated prior to arrival at the site, in good working condition, and suitable for its intended use.

2.2 MATERIALS

2.2.1 The following materials shall be furnished by the Contractor:

- a. Subsurface drainage piping: Corrugated High Density Polyethylene (HDPE) pipe with smooth interior and corrugated exterior. The pipe shall be N-12 as manufactured by Advanced Drainage Systems, Inc. (ADS) or approved equal (Advanced Drainage Systems, 3300 Riverside Drive, Columbus, OH 43221, 1-800-733-8523) and shall be solid or with slotted perforations as specified on the drawings. The drainage piping will be located at the perimeter of the final cover as a means to drain water from the drainage layer. The pipe shall be manufactured to comply with AASHTO M 252. Pipe materials shall meet ASTM F 405.

The pipe joints and fittings shall also be manufactured to comply with ASTM F 405 requirements and manufactured by the same manufacturer as the pipe.

- b. Pressure monitoring piping: PolyVinyl Chloride (PVC) pipe with and without perforations as specified on the drawings. Where specified, perforations shall consist of two rows of 1/2-inch diameter openings spaced at 6 inch centers or approved equal. The pipe shall be manufactured to comply with ASTM D 1785, Schedule 40.

Carbon steel pipe shall be manufactured in accordance with ASTM A 53, Type S. All buried portion of steel piping shall be externally coated and wrapped conforming to the requirements of AWWA C 209 cold applied primers and prefabricated tape type II or III meeting the following requirements:

- Coating material shall be Polyken 930, Tapecoat 10/40, No. 20, or approved equal.

- Primers and mastics shall be as recommended by the manufacturer of the selected coating system.
 - The wrapping thickness shall be 60 mils minimum applied in 2 layers.
- c. Culverts: Corrugated Metal Pipe (CMP) shall be in accordance with AASHTO M36. Size, corrugation, and gage shall be as shown on design drawings.
- d. Drainage Fill: Material shall be a clean, durable graded sand and gravel conforming to the following gradation limits when tested in accordance with ASTM D 422:

<u>U.S. Standard Series</u>	<u>Percent</u>
<u>Sieve Size</u>	<u>Passing</u>
1 inch	100
3/4 inch	75 - 100
#4	0 - 40
#40	0 - 5

- e. Gravel Filter: Material shall be crushed and screened slag or a clean, durable graded sand and gravel conforming to the following gradation limits when tested in accordance with ASTM D 422:

<u>U.S. Standard Series</u>	<u>Percent</u>
<u>Sieve Size</u>	<u>Passing</u>
4 inch	100
2 inch	49 - 87
1 1/2 inch	42 - 80
3/4 inch	22 - 60
3/8 inch	5 - 42
#4	0 - 20

- f. Sand Filter: Material shall be crushed and screened slag or a clean, durable graded sand and fine gravel conforming to the following gradation limits when tested in accordance with ASTM D 422:

<u>U.S. Standard Series</u>	<u>Percent</u>
<u>Sieve Size</u>	<u>Passing</u>
3/4 inch	100
3/8 inch	87 - 100
# 4	66 - 96
# 40	2 - 32
# 200	0 - 22

This material shall be classified as non-plastic when tested in accordance with ASTM D 4318.

- g. Liner Foundation Material: Material shall be crushed and screened slag or a clean, well-graded, fine-to-coarse sand and fine gravel conforming to the following gradation limits when tested in accordance with ASTM D 422.

<u>U.S. Standard Series</u>	<u>Percent</u>
<u>Sieve Size</u>	<u>Passing</u>
3/8 inch	100
#200	22 (max)

This material shall be classified as non-plastic when tested in accordance with ASTM D 4318.

- h. Concrete: Concrete for settlement monuments, lining channels, and ditches shall be in accordance with ASTM C 94 having a minimum compressive strength at 28 days of 3,000 pounds per square inch (psi) and maximum aggregate size not exceeding 3/4 inch.
- i. Miscellaneous Metal: Steel plates for settlement monuments and topsoil thickness indicators shall be in accordance with ASTM A 36. Steel pipe for settlement monuments and topsoil thickness indicators shall be in accordance with ASTM A 53.
- j. Welded Wire Fabric: Welded wire fabric for ditch lining shall be in accordance with ASTM A 185 and as specified on the design drawings.

- k. Sand-Cement Backfill Material: Sand-cement backfill material for the observation wells shall conform to the following:

Cement	2 90-pound sacks per cubic yard
Water	45 gallons per cubic yard
Coarse and Fine Sand	50% of remaining volume of mixture each or approximately 9.7 cubic feet per cubic yard each

The Contractor may propose alternative mixes for Bechtel's approval. It shall be demonstrated that the mix can fill the observation wells without voids and will develop a minimum 28-day unconfined compressive strength of 150 psi.

2.2.2 Owner will furnish the following materials at no charge to the Contractor:

- a. Coarse Slag: Well graded slag will be derived from the FMC Idaho, LLC plant. The Contractor is responsible for loading, hauling, and delivery of the slag material to the jobsite, including, screening and/or crushing the slag to a well graded material having no particles larger than 12 inches and smaller than 1-1/2 inches in size.
- b. Common Fill: Slag or soil excavated from the pond area or from plant borrow areas. Material shall have no particles larger than 12 inches in size.

3 EXECUTION

3.1 GENERAL

The work is to be performed at ponds which have stored sludge containing elemental phosphorus. Precaution shall be taken during any excavation at the site as elemental phosphorus may be encountered and exposed to air. Should elemental phosphorus be exposed by said activities, the exposed material shall be immediately covered and Bechtel immediately notified.

3.2 SUBGRADE PREPARATION

- a. Prior to the placement of the Liner Foundation material, the temporary HDPE liner over the pond, the existing temporary settlement markers, and the existing dewatering piping are to be removed. The existing 2-inch diameter HDPE pipe inserts and 6-inch diameter drainage pipes are to be cut back and capped with concrete. The steel pipes for the observation wells are to be cut and removed to top-of-finish subgrade and backfilled

with sand-cement backfill as shown on the Design Drawings. The 2-inch diameter steel dewatering discharge piping and the steel dewatering header are to be disconnected, cut into manageable length, decontaminated, and disposed of on-site.

Any buried piping encountered within the limit of the final cover shall be excavated, decontaminated, and removed unless otherwise specified, or directed by Bechtel. These excavations are subject to approval of Bechtel and shall be in accordance with Section 3.3. Bechtel will inspect the work throughout the duration of the excavation and may stop all work if deemed unsafe and/or possibly exposing elemental phosphorus. The area is to be backfilled in accordance with Section 3.2.b only after approval from Bechtel.

The observation wells are to be backfilled in such a way so as the annular space of the wells is completely filled with the sand-cement mixture. The mixture shall not be dropped from the top of the wells, but tremied with hose or pipe starting from the bottoms of the wells.

The temporary liner shall be cut into manageable pieces in the same direction as existing seams, rolled and properly stored. The seam strips shall be cut out and properly disposed of. Care shall be taken as much as practical to not damage the liner in any shape or form, including over-stretching, or puncturing the material. Damaged areas are to be marked for later repair or cut out as approved by Bechtel. Handling and storage of the material shall be in accordance with Specification P4-S-6.

- b. The existing dike and the slag backfill over the pond shall be graded to the lines, grades, and cross sections as shown on the design drawings. The surface to receive fill shall be compacted with three coverages of a vibratory roller with a minimum static weight of 12 tons. Any soft area shall be immediately reported to Bechtel and the material removed and/or scarified and recompacted as directed by Bechtel.

Grading shall include excavating excess material and filling of depressed areas and bench widening as needed for constructing other works as shown on the drawings. Excavations shall be in accordance with Section 3.3. Depressed areas shall be filled with excavated material or general fill placed in maximum loose lifts of 12 inches and compacted with three coverages of a vibratory roller with a minimum static weight of 12 tons. The finished subgrade to receive the Liner Foundation material shall form a tight and smooth surface without any large rock protrusions after compactions; if required, the rocks shall be removed and replaced with finer materials, and recompacted as directed by Bechtel.

- c. Materials removed, with the exception of the temporary HDPE liner, are to be disposed of on-site as directed by Bechtel.

3.3 EXCAVATION

- a. Excavation is unclassified and includes excavation to required grade, or subgrade elevations, regardless of the character of materials and obstructions encountered.
- b. Anchor trench excavation shall be performed to the line, grade, and cross section as shown on the design drawing and to the tolerances as specified herein. Anchor trench shall be excavated prior to geosynthetics placement.

The corners of the anchor trench where geosynthetics are to be placed shall be slightly rounded to avoid sharp bends in the geosynthetics. Sharp projections or irregularities on the surface of the finished subgrade or anchor trench will not be permitted.

- c. Tolerance for all excavated surfaces shall be within ± 0.1 foot of the elevation as specified in the design drawings.
- d. Overexcavation required to suit the Contractor construction equipment or methods shall be backfilled and recompacted to the required grade by and at the Contractor's expense, conforming to the requirements as specified in Section 3.4.
- e. Excavation for culverts and drainage piping where required shall consist of open cut trenches. The bottom width of the trench shall be the outside pipe diameter plus 2 feet. Shoring and bracing shall be placed to the extent necessary to retain the soil encountered, or the trench walls shall be sloped back to a minimum 1-to-1 slope or as shown on the design drawings, all in accordance with the safety requirements of the local and federal codes. The bottom of the trench shall be overexcavated by 6 inches to allow for bedding when coarse rock or slag are encountered.

The trench bottom shall be shaped to conform to the pipe barrel or shall be a bedding material consisting of drainage fill material.

3.4 FILL PLACEMENT AND COMPACTION

3.4.1 Liner Subgrade Preparation

- a. After the completion of subgrade preparation, as specified in Section 3.2, a layer of Sand Filter material shall be placed and compacted in a single 6-

inch compacted lift. On top of the compacted Sand Filter layer, a layer of Liner Foundation material shall be placed and compacted in a single 6-inch compacted lift.

The finished surfaces of both the Sand Filter and Liner Foundation layers shall receive a minimum of three coverages of a smooth steel wheel vibratory roller with a minimum static weight of 5 tons to ensure no sharp protrusions remain. No sharp particles or other hard objects shall be present in the top 1 inch of the surfaces where geosynthetics are to be placed.

The surface to be covered with Geosynthetic Clay Liner (GCL) shall be smooth and free of all rocks, sharp stones, sticks, roots, other sharp objects, or debris of any kind. The surface shall have no sudden, sharp, or abrupt changes or break in grade.

Deformations in the surface shall not be greater than 1 inch in depth. If bedding surface is frozen, then deformations shall be not greater than 0.5 inch in depth.

- b. Prior to the installation of the GCL, the Contractor or GCL Installation Subcontractor, if other than the Contractor, shall, with concurrence from Bechtel, verify the conditions of the Liner Foundation surface on which the GCL will be placed to ensure that this surface represents a stable surface to support the material. The Liner Foundation surface preparation is deemed complete only after the GCL Installation Subcontractor notifies Bechtel in writing of acceptance of the prepared surface.

3.4.2 Backfilling Anchor Trench

- a. The anchor trench shall be adequately drained to prevent ponding or softening of the adjacent soils while the trench is open. The anchor trench shall be backfilled after the geosynthetics are installed. The backfill material shall be placed in 6-inch loose lifts and well tamped.
- b. Consideration shall be given to backfilling the geosynthetic liners at its most contracted state, preferably during the cool of the morning or extended period of overcast skies, to avoid stretching of the lining materials.

3.4.3 Sand Filter or Liner Foundation Material above Geosynthetic Materials

- a. Sand Filter or Liner Foundation material, with a minimum compacted thickness of 12 inches, shall be spread over the drainage net and geotextile by an LGP Caterpillar D-6 tractor or approved equal. The tractor shall

have a contact pressure not exceeding 5 psi, or equivalent, to initially spread the material. The material shall be spread in one lift, in a direction perpendicular to the underlying seams of the geosynthetic material, and when a sufficient area is completed, it shall immediately be covered with 18 inches of slag. Hauling equipment shall be permitted to move on slag only to prevent displacement of the Sand Filter/Liner Foundation material. Dozers or graders shall not be permitted to turn on the Sand Filter/Liner Foundation material.

- b. The Sand Filter or Liner Foundation material shall be placed in a manner that does not damage, puncture, displace, or otherwise degrade the geotextiles. If damage to the liner occurs or the geotextile is considered by Bechtel to be endangered, the Contractor shall cease operation at the direction of Bechtel and modify his operations, equipment, or methods. Any damage to the fabric or other geosynthetics shall be repaired according to the more stringent of the techniques recommended by the manufacturer, pre-approved by Bechtel, or using methods included in the specifications at no expense to Owner/Bechtel.

3.4.4 Coarse Slag Fill

- a. Coarse slag shall be placed in one 18-inch compacted layer. The slag shall be spread with a dozer. The slag is to be pushed by the dozer so that at all times the dozer will only be traveling on the newly placed slag. After placement, the slag shall be compacted with a smooth wheel vibratory roller in accordance with the procedures established under Section 3.4.4.b to achieve adequate compaction.
- b. Prior to general placement of slag over the geotextiles, a test section having minimum dimensions of 30-foot wide by 50-foot long shall be constructed as specified herein. The coarse slag layer shall be compacted with a smooth wheel vibratory roller having a minimum static load of 5 tons. The settlement of the surface shall be measured and the number of coverages recorded, all to determine a relationship between the number of coverages and settlement. Adequate compaction shall be defined as the number of coverages to achieve 80 percent of the ultimate compaction settlement which is achievable by the specified method. A minimum of three coverages shall be required. Contractor's pricing shall be based on three coverages. Additional coverages will be paid as additional work.

3.4.5 Gravel Filter Layer

- a. The gravel filter material shall be placed and compacted in a single lift.

- b. The finished surface shall receive a minimum of three coverages of a smooth steel wheel vibratory roller with a minimum static weight of 5 tons.

3.4.6 Sand Filter Layer

- a. The sand filter material shall be placed and compacted in a single lift.
- b. The finished surface shall receive a minimum of three coverages of a smooth steel wheel vibratory roller with a minimum static weight of 5 tons.

3.4.7 Trench Backfill

- a. Trench backfill shall be placed along both sides of the pipe equally in uniform layers. Care shall be taken to ensure the pipe is not displaced or damaged and the voids under the haunches are filled.
- b. Backfill material and compaction requirements shall be as follows:

Compacted backfill material around culverts or pipes to 12 inches above pipe:

<u>Pipe Material</u>	<u>Backfill Material</u>	<u>Max Loose lifts (inches)</u>	<u>% Max Dry Density¹</u>
HDPE	Drainage fill	6	well tamped
PVC, CMP Carbon steel	Local material as approved ²	6	85

Trench backfill from 12 inches above pipe to finish grade:

<u>Pipe Material</u>	<u>Backfill Material</u>	<u>Max Loose lifts (inches)</u>	<u>% Max. Dry Density¹</u>
HDPE	Drainage fill	12	well tamped
CMP	Local material as approved ³	12	90

¹ In accordance with ASTM D 1557.

² No particle larger than 3 inches.

³ No clay, frozen soil, brush, or any organic or deleterious materials.
Maximum particle size not exceeding 6 inches.

- c. All surfaces shall be restored to their original condition that existed prior to the trench excavation, including paved areas, where the surfaces shall be constructed to match those of the existing pavement sections.

3.4.8 Lift Station Backfill

- a. Backfill materials shall consist of approved local materials and shall be free of expansive clay, frozen soil, brush, or any organic or deleterious materials. Maximum particle size shall not exceed 6 inches.
- b. Backfill materials shall not be placed on snow, ice, or frozen ground surfaces. All surfaces to receive backfill shall be cleaned of all trash and debris.
- c. Backfill shall be placed in uniform loose lifts not to exceed 8 inches in thickness and shall be compacted to not less than 85 percent of maximum dry density as determined in accordance with ASTM D 1557.
- d. Backfill adjacent to lift stations shall be placed and compacted equally along both sides of the structure to prevent strain on or displacement of the structure.
- e. Finished surfaces shall conform to the lines and grades shown on the drawings.

3.5 PLACING AND JOINTING OF CULVERTS AND DRAINAGE PIPING

- 3.5.1 Prior to lowering pipe into the trench, the joints shall be thoroughly cleaned and carefully checked. Pipe shall be laid true to line and grade according to the requirements as specified herein.
- 3.5.2 Laying shall start from the lowest end. Perforated pipe shall be laid with perforation down and centered about the flow line.
- 3.5.3 Pipe shall be installed in accordance with the manufacturer's instructions. The CMP shall be jointed with galvanized steel coupling bands with neoprene gaskets. Corrugated HDPE pipes shall be jointed with corrugated HDPE split couplings in accordance with manufacturer's instructions.
- 3.5.4 No vehicular traffic shall be permitted to travel across the HDPE pipes until a minimum of 2 feet of cover is placed and compacted over the pipes in accordance with Section 3.4.5.

3.6 CHANNELS AND DITCHES

- 3.6.1** Drainage channels and ditches shall be excavated true to the lines, grade, and cross sections as shown in the design drawings. If excavation beyond the specified grades is required in order to remove boulders or other obstructions, the voids remaining shall be backfilled with suitable local material as approved by Bechtel.
- 3.6.2** Backfill shall be placed in loose lifts of 6 inches with suitable excavated material free of expansive clay, organic, or deleterious material and compacted to not less than 90 percent of maximum dry density as determined in accordance with ASTM D 1557.
- 3.6.3** Vertical tolerance for unlined channels and ditches shall be 0.1 foot above and 0.2 foot below the specified grade of the channels and ditches.
- 3.6.4 Concrete-Lined Channels and Ditches**
 - a.** The area to be concrete-lined shall be prepared by shaping, compacting, and excavating of the channels or ditches including the cut-off walls. All depressions and overexcavation shall be filled and compacted in accordance with Section 3.6.2 or filled with lean concrete.
 - b.** Concrete shall be placed directly on firm excavated surface to the line, grade, and dimensions shown on the design drawings. The surface on which concrete is to be placed shall be free of water. The vertical tolerance shall be plus or minus 0.04 foot.
 - c.** Concrete shall be of such consistency that it can be placed on the slopes without flowing. All control joints shall be completed as shown on the design drawings. In the event it is not feasible to complete the entire placing in one operation, the placement shall be terminated with a construction joint.
 - d.** As a minimum, the concrete surface shall be given a float finish and cured.
 - e.** All concrete work shall be in accordance with applicable sections of ACI 301, 304, 305 and 306.
 - f.** Methods such as gunite may be used for placing the lining. The proposed methods will be subject to approval of all details and be capable of demonstrating to the satisfaction of Bechtel that they will achieve the thickness, flow line, finish, and durability as specified.

3.6.5 Settlement Monument

Concrete work shall be in accordance with Section 3.6.4.b and e. Welding shall be in accordance with AWS D1.1.

3.6.6 Topsoil Thickness Indicators

Concrete work shall be in accordance with Section 3.6.4.b and e. Welding shall be in accordance with AWS D1.1.

3.7 DRAINAGE AND WATER CONTROL

- 3.7.1** Contractor shall take measures as necessary to control soil erosion in the construction areas during the life of the Contract. Such measures shall include berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.
- 3.7.2** Off-site drainage shall be diverted from the site and areas of work by such means as grading to drain away from the area of concern, and/or constructing temporary berms or ditches. Water in excavations shall be controlled and removed. Discharges from pumps shall be directed away from the area of the pond final cover to locations as directed by Bechtel.

3.8 TOLERANCES

Tolerances shall be plus and minus 0.10 foot unless otherwise specified herein.

3.9 TESTING

- 3.9.1** Tests for specified compaction for trench backfill shall be conducted by an authorized independent test laboratory at no extra cost to Owner/Bechtel in accordance with the following:
 - a. Maximum dry density and optimum moisture content shall be determined in accordance with ASTM D 1557, Method D.
 - b. In-place density shall be determined in accordance with the test procedure given in ASTM D 1556.

At the option of the Contractor, in-place density determined by ASTM D 2922 meeting the following requirements may be used. The nuclear densometer shall be calibrated by comparison with results from ASTM D 1556. Initially, three (3) check tests of density and moisture shall be performed by the sand cone method. Thereafter, one (1) test in ten (10) shall be verified with a sand cone test. At least one check shall be

- performed each day for each material. Nuclear densometers shall not be used under freezing conditions.
- c. Tests for maximum dry density and optimum moisture content shall be made for each type of material encountered or one test for each five sand cone tests with a minimum of one test for every 5 work days.
 - d. Field in-place density and moisture tests shall be made, as required, to verify that the specified compaction is achieved. A minimum of one test for every 1,000 cubic yards of compacted fill or one test per shift shall be made for each different type of material being placed or when materials or material sources change.
 - e. Where compaction of fill material does not meet the specified compaction, it shall be reworked until it complies with the specified in-place density.

3.10 DAILY QUALITY CONTROL LOG

- a. The Contractor shall maintain a Daily Quality Control (QC) log during all phases of the earthwork and drainage piping installation. This log shall document the daily progression of these installations from the delivery of the materials to final acceptance. The log shall designate those construction activities that influence the integrity of the earthwork and drainage systems during installation. The log, at a minimum, shall include entries and detailed documentation of the following:
 - Weather: temperature, winds, and precipitation.
 - Preparation activities, including removal of water, and over-excavation, backfilling, and recompaction of subgrade.
 - Elemental phosphorus encountered, if any, during excavation and corrective action taken.
 - Repairs and replacements of piping materials.
 - Compaction operations including lift thicknesses, equipment used, and number of coverages, and the type of compaction equipment.
 - Results, locations, and elevations of in-place density testing, including corrective action taken.
 - Inspection and installation of drainage piping and culverts, including the excavation and backfilling of pipe trenches.

- Names of all personnel conducting work at the site.
 - Names, dates, and times for when the jobsite is visited by regulatory personnel, Contractors or vendors, and the FMC Idaho, LLC personnel.
 - Photographs of all phases of earthwork operations and piping installation.
 - Limit and extent of excavation if required for removal of buried piping.
 - Deviations from the Construction Quality Assurance Plan, drawings and specifications.
- b. Prior to performing the work, the Contractor shall submit the Daily QC log format for approval by Bechtel.

3.11 INSPECTION

Bechtel will be present for the entire duration of the work. The Contractor shall provide access and support, as needed, for inspection by Bechtel while work is in progress as well as at the completion of each operation.

Inspection by Bechtel does not imply acceptance until all the requirements of this specification are met.

3.12 CLEANUP

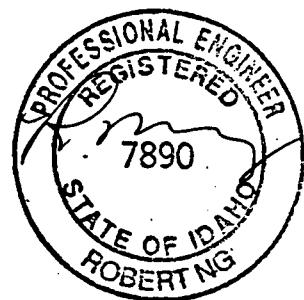
At the end of the work, all temporary working areas shall be restored to their original conditions with all temporary construction materials removed and the site cleaned.

FMC IDAHO, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

TECHNICAL SPECIFICATION
GEOSYNTHETIC CLAY LINER



5-2-02

REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR
0	5/2/02	ISSUED FOR CONSTRUCTION	RN	M	MM
SF-BEI	ORIGIN	TECHNICAL SPECIFICATION GEOSYNTHETIC CLAY LINER POND FINAL COVER	JOB NO.	24230	SPECIFICATION NO. P4-S-5 REV. 3

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1 GENERAL

This specification includes requirements for the manufacture, supply, delivery, testing, storage, and installation of Geosynthetic Clay Liner (GCL) within the final cover system. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

The GCL will be installed over suitably prepared subgrade and underneath a Flexible Membrane Liner (FML) which are covered by separate and related specifications.

1.1 RELATED SPECIFICATIONS

The following specifications contain requirements that relate to this specification:

- a. P4-S-4 Earthwork and Grading
- b. P4-S-6 Flexible Membrane Liner
- c. P4-S-7 Geonet and Geotextile
- d. P4-S-8 Topsoil and Seeding
- e. P4-S-9 Temperature Monitoring Points

1.2 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.
- d. Installation Subcontractor: The party who will be responsible for the actual installation of the GCL liner, if other than the Contractor.

1.3 MATERIAL TESTING PROCEDURES

Geosynthetic testing is evolving, should any of the test methods referenced in this specification become obsolete at the time of construction, more current test methods may be substituted at the discretion of Bechtel.

1.4 SUBMITTALS

The Contractor shall submit the following documents for Bechtel's approval and acceptance prior to mobilization of the GCL installer unless otherwise noted:

- a. GCL placement method and plan per Section 3.2.a shall be submitted, including jointing of the liner material.
- b. Certified reports presenting the results of the laboratory testing required by this specification shall be submitted to Bechtel for review and approval prior to delivery. The submittals shall clearly show the date the GCL to be used for this project was manufactured. The Contractor must satisfy Bechtel that the material proposed meets every requirement of this specification.
- c. Within 2 weeks after award of the Contract, the Contractor shall submit two (2) samples of the materials to Bechtel for review and approval.
- d. The Contractor shall submit, within 2 weeks after award of the Contract, the manufacturer's recommended installation procedures for the placement and jointing of the GCL material, including procedures for repair.
- e. The Contractor shall provide Bechtel with Record (as-built) Drawings showing the limits of the installed GCL material. The Record Drawings shall also indicate the corresponding panel and roll numbers, and where samples were taken for plant testing. The record drawings shall be submitted within 2 weeks of completion of geosynthetics placement.
- f. The GCL manufacturer's certification or written approval of the installation subcontractor, and the name and qualification of the manufacturer's representative shall be submitted to Bechtel 7 days prior to installation. The GCL manufacturer must have experience in manufacturing, or fabricating, at least 1,000,000 m² (10,000,000 ft²) of similar geosynthetic material. The geosynthetic installer must have experience installing at least 1,000,000 m² (10,000,000 ft²) of similar geosynthetic material.

1.5 DELIVERY, STORAGE, AND HANDLING

- a. GCL material shall be delivered to the site only after Bechtel has approved the required submittals. Storage and handling of the materials shall conform to the manufacturer's recommendations and shall be accomplished in such a manner as to prevent damage to any part of the work. The Contractor shall provide sufficient labor and equipment to properly unload material upon delivery to the site.

Owner will provide an area near the site for storage of material. The material shall be stored in a reasonably smooth, well-drained, level portion of the storage area provided, away from sharp objects or rocks that may puncture the material; away from brush, oil, grease, or fuels; and in an area accessible for inspection. Stacking shall always allow access to at least one end of each roll. To prevent degradation or wetting of the materials, the protective wrapper on each GCL roll shall not be removed until the material is ready for deployment. Any damage to the wrapper during delivery shall be repaired to the satisfaction of Bechtel.

- b. Identification tags attached to the rolls of GCL material delivered to the site shall not be removed until the material is installed. Each GCL roll or panel shall be identified with the following information:
 1. Product type and/or name
 2. Name of manufacturer
 3. Manufacturing batch code
 4. Manufacturing roll number
 5. Dimensions of panel or roll (length and width)
- c. GCL panels or rolls that are not clearly labeled shall be rejected for use on the Project until the labeling is corrected. The Contractor shall carefully inspect each roll or panel upon arrival at the site to ensure compliance with the labeling procedures. The Contractor shall also keep a record of the identification tags for each roll and panel. Any roll not properly identified prior to deployment activities may be rejected and deemed unacceptable for use by Bechtel, at the expense of the Contractor, until such information is provided/corrected.

2 EQUIPMENT AND MATERIALS

2.1 EQUIPMENT

The GCL shall be placed using suitable equipment that can pull and place the liner material over the area to receive the GCL, and as agreed upon between Contractor and Bechtel and approved by the GCL manufacturer. All equipment shall be decontaminated prior to arrival at the site, in good working condition, and suitable for its intended use.

2.2 MATERIALS

The GCL is a material consisting of a very thin layer of bentonite bonded to one or more geosynthetics and has a very low hydraulic conductivity that is suitable for use as a hydraulic barrier to restrict the penetration of water. At the option of the Contractor, the two types of GCL that can be used shall be either a Type I or a Type II material. The Type I material consists of a layer of bentonite mixture bonded to a High Density Polyethylene (HDPE) geomembrane backing on one side (see Table 1). The Type II material consists of a layer of bentonite bonded on both sides with a geotextile material.

- 2.2.1 The acceptable GCL materials shall meet all the requirements as specified herein.
- 2.2.2 The physical properties of the GCL shall be as specified in Tables 2 and 3.

Table 1
Physical Properties of HDPE Geomembrane
Used as GCL Backing Material for Type I GCL

Property	ASTM Test Method	Required Minimum Value ¹	Unit
Tensile strength @ yield	D 638	20	lb/in
Elongation @ yield	D 638	10	%
Puncture	D 4833	20	lb
Density	D 1505	0.94	g/cm ³

¹ Minimum average roll values.

Table 2
Mechanical and Hydraulic Properties
of Type I GCL

Property	ASTM Test Method	Required Minimum Value ²	Unit
Bentonite density	D 5993 ¹	0.75	lb/ft ²
Hydraulic conductivity: Overlapped Seam	D 5887	5x10 ⁻¹¹	m/sec (max.)
Hydraulic conductivity	D 5887	4x10 ⁻¹⁴	m/sec (max.)

¹ At 0% adjusted moisture content.

² Minimum average roll values.

Table 3
Mechanical and Hydraulic Properties
of Type II GCL

Property	ASTM Test Method	Required Minimum Value ¹	Unit
Bentonite density	D 5993 ²	0.75	lb/ft ²
Grab tensile strength	D 4632	80	lb
Peel strength	D 4632	15	lb
Saturated hydraulic conductivity (Tested with water at 5 lb/in ² effective stress and 2 lb/in head)	D 5084 or D 5887	5x10 ⁻⁹	cm/sec (max.)

¹ Minimum average roll values.

² At 0% adjusted moisture content.

2.2.3 Raw Material Testing and Compliance

- a. The active ingredient of all GCL materials shall be sodium bentonite. The bentonite shall exhibit a maximum fluid loss of 18 ml when tested in accordance with ASTM 5891 and a minimum swell index (free swell) of 24 ml / 2g when tested in accordance with ASTM D 5890. The GCL manufacturer shall conduct one of each of these tests on the sodium bentonite material used at a frequency of 100,000 pounds of bentonite used in GCL production.
- b. The shipment container of the lot from which each test sample is collected shall be correlated to the GCL rolls produced. In addition, Certificates of Compliance shall be submitted by the bentonite suppliers to the GCL manufacturers certifying that the raw sodium bentonite satisfies the manufacturer's specifications. The GCL manufacturer shall collect and maintain these certificates for this Project. The Contractor shall submit certified reports presenting laboratory test results and copies of the Certificates of Compliance indicated above to Bechtel prior to installation of GCL material.

2.2.4 Conformance Testing

- a. Geomembrane material used to form the backing layer of Type I GCL, if provided, shall be tested by the geomembrane manufacturer(s), prior to shipment to the GCL manufacturer, to ensure that the physical and mechanical properties of the material are in conformance with this

specification. The required material properties for the geomembrane backing material are presented in Table 1.

- b. The Type I GCL itself, if provided, shall also be tested to verify that its weight and mechanical and hydraulic properties are in conformance with this specification. The required material properties for Type I GCL are presented in Table 2. The GCL shall be sampled and tested in conformance with the manufacturer's written quality assurance plan and in conformance with this specification. Bentonite density tests shall be performed one per every 40,000 ft² of GCL produced for this project. Hydraulic conductivity testing shall be performed a minimum of once weekly for the production line used to manufacture the GCL for this project, with the results of the last 20 tests being reported. In addition, one (1) coupon measuring 3 feet in length by the full roll width shall be collected by the Contractor for every 100,000 ft² of GCL produced shall be retained intact by the manufacturer until construction of the final cover system, for which the GCL is used, is complete. These coupons shall be submitted to Bechtel upon request. Conformance testing shall be performed on the GCL for the properties listed in Table 2.
- c. The Type II GCL, if provided, shall be tested to ensure that the physical and mechanical properties of the material are in conformance with this specification. The required material properties for Type II GCL are presented in Table 3. Bentonite density and peal strength tests shall be performed one per every 40,000 ft² of GCL produced for this project. Grab tensile strength tests shall be performed one per every 200,000 ft² of GCL produced for this project. Hydraulic conductivity testing shall be performed a minimum of once weekly for the production line used to manufacture the GCL for this project, with the results of the last 20 tests being reported. In addition, one (1) coupon measuring 3 feet in length by the full roll width shall be collected by the Contractor for every 100,000 ft² of GCL delivered and shall be submitted to Bechtel. Conformance testing shall be performed on the GCL for the properties listed in Table 3.
- d. If the average test values of any individual lot sampling unit (one roll of material) does not meet one or more specification values, the entire lot (total number of rolls to be deployed at the pond) shall be re-sampled and tested; the lot sampling unit that failed the initial testing will be rejected prior to resampling the lot. The entire lot will be rejected if all the lot sampling units fail the initial testing or if the average test values for any individual lot sampling unit from the re-sample do not meet one or more of the acceptable specification values.

2.2.5 Laboratory Testing

- a. Unless otherwise indicated, the materials furnished by the Contractor shall be tested by the manufacturer or a certified independent geosynthetics testing laboratory and at the expense of the manufacturer or the Contractor.

2.2.6 Visual Inspection During Installation

- a. During deployment of the GCL materials, the Contractor shall perform visual inspections of the material surfaces. Bechtel will also perform his own visual inspections in addition to those by the Contractor. Any faulty areas relating to material integrity, uniformity, rips or tears, seaming completeness, and seam overlap shall be repaired by the GCL Subcontractor using the more stringent of the techniques recommended by the manufacturer, pre-approved by Bechtel, or as specified in Section 3.2 of this specifications. Such repairs shall be reported to Bechtel by means of the Daily Quality Control (QC) log. At any point in the work, if the Daily QC log has not been submitted to Bechtel, Bechtel has the right to stop the GCL installation activities at the expense of the Contractor.

3 EXECUTION

3.1 SURFACE ACCEPTANCE BY INSTALLATION SUBCONTRACTOR

Prior to installation of the GCL, the Installation Subcontractor, with concurrence from Bechtel, shall verify the conditions of the installed material surface on which the GCL will be placed. He shall ensure that this surface provides stable support for the GCL and is free of all potentially harmful objects such as sticks, rocks, and sandbags. The Installation Subcontractor shall notify Bechtel, in writing, of acceptance of the prepared surface prior to installation of the GCL by completing, signing, and submitting the appropriate documentation to Bechtel. This acceptance shall be consistent with the requirements of the GCL manufacturer for the liner subgrade surface in order to preserve the warranty for the GCL. The surface on which the GCL is to be placed shall be maintained in a firm, clean, dry, and smooth condition during lining installation.

3.2 INSTALLATION PROCEDURE

- a. The GCL panels shall be deployed and installed consistent with the most stringent of these specification, Bechtel-approved panel installation drawings or manufacturer's recommendations. The GCL shall not be placed during any precipitation, in the presence of excessive moisture, or

in the presence of excessive winds. The GCL shall be installed by the Contractor with personnel who are experienced in installation of such material. Bechtel's approval of the drawings does not relieve the Contractor of its responsibility to properly install the GCL material.

- b. The Type I GCL, if provided, shall be handled and staged for installation with the geomembrane backing facing down (clay side up towards the Flexible Membrane Liner [FML]). If a Type II GCL is provided that has different weight geotextile on either side, then the side with the heavier geotextile shall be placed facing down. The GCL shall then be deployed in a generally downslope direction to provide for drainage, collection, and removal of precipitation away from the work area. Adjacent GCL panels shall be overlapped in accordance with manufacturer's recommendations.
- c. GCL panels shall be of such lengths and widths and shall be placed in such a manner as to minimize seams. The overlying FML geomembrane material shall be placed over the GCL as soon as practical after placement of the GCL. Only those panels of GCL material that can be covered that same day with said material shall be unpacked and placed in position.
- d. The GCL shall be dry when installed and covered. The Contractor shall have tarps and other materials available on-site for covering exposed GCL in the event that an unexpected rainfall event occurs. Any GCL material that becomes wet will be deemed unacceptable and rejected by Bechtel. The rejected material shall be removed off-site and replaced with acceptable material at the expense of the Contractor.
- e. During times when wind is prevalent, GCL installation should start at the upwind side and proceed downwind. The leading edge of the GCL shall be secured by the Contractor at all times with sandbags or other means sufficient to hold it down during high winds.
- f. The first and succeeding panels of GCL shall be adjusted to smooth out creases or irregularities in the panels. Once the first panel has been deployed, adjoining panels shall be laid with a minimum 6-inch overlap on each side, or a greater overlap if recommended by the manufacturer. End-of-roll seams shall be overlapped a minimum of 12 inches. All dirt shall be removed from the overlap area of the GCL panels. The GCL shall be installed in a relaxed condition and shall be free of tension or stress upon completion of the installation. The overlap shall conform to the contours of the panels laid with no gaps in between. Stretching of the GCL to fit required overlaps will not be allowed.
- g. If required by the manufacturer for proper seaming, granular bentonite shall be dispersed evenly from the panel edge to the overlap limit at the

recommended minimum rate and continuously along all seams and overlap areas. Granular bentonite shall be the same as that used to manufacture the GCL.

- h. In hot weather, expansion of the Type I GCLs may occur soon after placement when no FML geomembrane material has yet been placed. In order to account for the possibility of shrinkage after covering with said geomembrane under these conditions, the longitudinal seam overlap shall be increased as required and approved by Bechtel.
- i. Irregular shapes, cuts, or tears in installed GCL material shall be covered with sufficient GCL to provide a 12-inch overlap on all adjoining GCL panels, or a greater overlap if recommended by the manufacturer.
- j. A representative of the GCL's manufacturer shall be provided by the installer to observe and inspect installation procedures for QC conformance during the first day of liner placement. If necessary, the GCL manufacturer's representative shall remain on-site at no additional cost to Owner/Bechtel, until, in the opinion of the representative, the installation procedures complies with the manufacturer's QC standards.

3.3 DAILY QUALITY CONTROL LOG

- a. The Contractor shall maintain a Daily QC log during all phases of GCL installation. This log shall document the daily progression of the GCL installation from the delivery of the GCL to final acceptance. The log shall designate those construction activities that influence the integrity of the GCL during installation. The log, at a minimum, shall include entries and detailed documentation of the following:
 - Weather: temperature, winds, and precipitation.
 - Preparation activities, including removal of water, sediment, GCL cleaning, or underlying support/bedding layer smoothing and repair.
 - Repairs and replacements.
 - Seaming activities.
 - Equipment used to place the GCL.
 - Inspection and backfilling of anchor trench.
 - Photographs of GCL installation.

- Names of all personnel conducting work at the site.
 - Names, dates, and times for when the jobsite is visited by regulatory personnel, subcontractors or vendors, and the FMC Idaho, LLC personnel.
 - Deviations from the Construction Quality Assurance Plan, drawings and specifications.
- b. Prior to performing the work, the Contractor shall submit the Daily QC log format for approval by Bechtel.

3.4 INSPECTION

Bechtel will be present during the entire GCL material installation. Bechtel will also inspect the GCL material as it is placed. The Contractor shall provide access and support, as needed, for the inspection of the GCL material.

Inspection by Bechtel does not imply acceptance until all the requirements of this specification are met.

3.5 CLEANUP

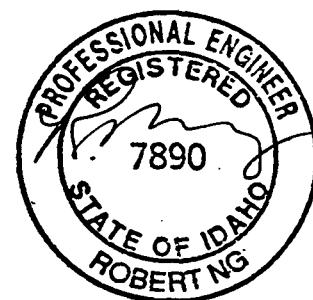
At the end of the work, all temporary working areas shall be restored to their original conditions with all temporary construction materials removed and the site cleaned.

FMC IDAHO, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

TECHNICAL SPECIFICATION
FLEXIBLE MEMBRANE LINER



REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR
0	5/2/02	ISSUED FOR CONSTRUCTION	Ren	MML	MM
ORIGIN			JOB NO.	24230	
 SF-BEI		TECHNICAL SPECIFICATION FLEXIBLE MEMBRANE LINER POND FINAL COVER	SPECIFICATION NO.	P4-S-6	REV. 0
			SHEET 1 OF 17		

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1 GENERAL

This specification includes requirements for the manufacture, supply, delivery, testing, storage, and installation of the Flexible Membrane Liner (FML) within the final cover system. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

1.1 RELATED SPECIFICATIONS

The following specifications contain requirements that relate to this specification:

- a. P4-S-4 Earthwork and Grading
- b. P4-S-5 Geosynthetic Clay Liner
- c. P4-S-7 Geonet and Geotextile
- d. P4-S-8 Topsoil and Seeding
- e. P4-S-9 Temperature Monitoring Points (Wells)

1.2 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.
- d. Installation Subcontractor: The party who will be responsible for the actual installation of the FML, if other than the Contractor.

1.3 MATERIAL TESTING PROCEDURES

Geosynthetic testing is evolving, should any of the test methods referenced in this specification become obsolete at the time of construction, more current test methods may be substituted at the discretion of Bechtel.

1.4 SUBMITTALS

The Contractor shall submit the following documents for Bechtel's approval and acceptance prior to mobilization of the FML installer unless otherwise noted.

- a. FML placement method and plan per Section 3.3.1.a shall be submitted, including manpower, equipment, and a detailed description of field testing methods to be performed.
- b. Certified reports presenting the results of the laboratory testing required by this specification shall be submitted to Bechtel for review and approval prior to delivery. The submittals shall clearly show the date the FML to be used for this project was manufactured. The Contractor must satisfy Bechtel that the material proposed meets every requirement of this specification.
- c. Within 2 weeks after award of the Contract, the Contractor shall submit two (2) samples of the materials to Bechtel for review and approval.
- d. The Contractor shall submit, within 2 weeks after award of the Contract, the manufacturer's recommended installation procedures for the placement and jointing of the FML material, including procedures for repair.
- e. The Contractor shall provide Bechtel with Record (as-built) Drawings showing the limits of the installed FML material. The Record Drawings shall also indicate all factory and field seams, construction repairs, coupon test locations, repaired factory defects, patches, panel numbers with directions rolled, welds, and panel remnant locations. The Record Drawings shall also indicate the factory and field panel numbers from which coupons were taken prior to installation and the samples for manufacturing plant physical property testing, as required in Sections 2.1.3. The record drawings shall be submitted within 2 weeks of completion of geosynthetics placement.
- f. The FML manufacturer's certification or written approval of the Installation Subcontractor, and the name and qualification of the manufacturer's representative shall be submitted to Bechtel 7 days prior to installation.
- g. The manufacturer's Quality Assurance (QA) program and/or manual shall be submitted to Bechtel. The QA program or manual shall outline the factory and field quality control procedures to be used in the manufacture, installation, and field testing of these materials. This shall address, at a minimum, delivery and handling of raw materials, geomembrane sheet roll production, and Quality Assurance/Quality Control (QA/QC) of these

activities. It shall also address manufacturer's recommended installation and repair procedures with construction details for the installation of geomembrane, penetration and anchorage, including all necessary seaming equipment and accessories.

The requirements of this QA manual shall be considered minimum required standards and specifications for the manufacture, installation, and testing of the geomembrane; however, where the requirements of these specifications are more stringent than those of the QA manual, these specifications shall govern the construction. Where these specifications are of the less stringent standards, the requirements of the QA manual shall govern the construction.

- h. Laboratory test results, certified by the testing laboratory, for the conformance tests required under Section 2.1.3 shall be submitted prior to installation of the geomembrane. These tests shall be performed on samples collected from geomembrane rolls to be used for this Project.
- i. Shop drawings showing locations of proposed panel layout and associated field seams to cover the area as shown on the drawings. The panels shall be laid out for installation in such a way as to conform to the corresponding GCL panel layout, and the installation sequence and cover protection requirements as specified in Specification P4-S-5. Shop drawings shall also indicate the direction the liner is folded or rolled, and shall show panel sizes consistent with the material quantity requirements as described herein. The panels shall also be laid out in such a manner as to minimize seams running parallel to the anchor trench, either inside or at the immediate vicinity of the trench.
- j. Detailed sequence of installation.
- k. Manufacturer's Warranty for the installed geomembrane.
- l. Complete description of field-seaming procedures.
- m. Manufacturer's nondestructive and destructive seams testing procedures shall be submitted. These procedures shall include type(s) of tests, list of equipment required, frequency of tests with locations, methods, qualifications of personnel that perform the tests, and acceptance/rejection criteria for tested seams.
- n. Construction procedures for anchor trenches, including method of placement, equipment, and personnel. Details as required for a complete and sound installation shall also be included.

- o. Contractor's Daily Quality Control (QC) log format to be used during geomembrane installation.
- p. The Contractor shall submit written notification to Bechtel of the geomembrane field supervisor and welders' work experience relative to High Density Polyethylene (HDPE) geomembrane installation and welding. The installer's supervisor shall have been responsible for installing at least 250,000 ft² of HDPE geomembrane. Each welder is required to have a minimum of 1 year's experience welding HDPE geomembrane and the master welder shall have a minimum of 3 years' experience welding HDPE or similar geomembrane. No geomembrane welding shall begin until Bechtel has received the notifications and has approved the supervisor and individual welder qualifications.

1.5 DELIVERY, STORAGE, AND HANDLING

- a. Each factory-fabricated panel, if any, shall be prominently and indelibly marked with the panel size. Panels shall be protected as necessary to prevent damage to the panel during shipment.
- b. Identification tags attached to the rolls of FML material delivered to the site shall not be removed until the material is installed. Each FML roll or panel shall be identified with the following information:
 1. Product type and/or name
 2. Name of manufacturer
 3. Manufacturing batch code
 4. Manufacturing roll number
 5. Panel number (if relevant)
 6. Dimensions of panel or roll (length and width)
- c. Materials shall be delivered to the site only after the required submittals have been furnished and approved. Storage and handling of the materials shall conform to the manufacturer's recommendations and shall be accomplished in such a manner as to prevent damage to any part of the materials. The Contractor shall provide labor and equipment to properly unload material upon arrival at the site.

Owner will provide an area near the site for storage of material. Storage shall be in the area provided and the Contractor is to take measures to store the materials in a manner reasonably free of dirt, dust, direct sunlight, extreme heat and disturbance.

The material shall be stored in a reasonably level area that is well-drained, away from oils/fuels, brush, debris, in an accessible area for inspection, and on a smooth surface so that the material is well-supported and not resting on sharp objects that could damage it. Stacking shall always allow access to at least one end of each roll. The protective covers used to wrap each roll of geomembrane, if used by the manufacturer, shall not be removed until immediately before the material is to be installed in the field.

2 MATERIALS

2.1 SHEET GEOMEMBRANE

- a. The lining material shall be nominal 60 mil HDPE flexible geomembrane of uniform color, thickness, size, and surface texture. The finished sheet geomembrane shall be free from pinholes, blisters, and contaminants.
- b. The lining material shall be manufactured from a composition of high-quality domestic virgin HDPE resin. Reprocessed or reground materials are not acceptable. The material's physical properties shall conform to Table 1.
- c. Sufficient geomembrane panel material shall be fabricated and furnished to cover the area to be lined as shown on the drawings, including overlaps at field seams and perimeter anchorage. Two (2) percent shall be added to the area of each fabricated panel to allow for shrinkage and wrinkles.

2.1.1 Manufacturer Qualifications

The HDPE manufacturer shall be a specialist in the manufacturing of HDPE geomembrane and shall have produced and supplied at least 2 million ft² of said material that was used in successful applications.

2.1.2 Installer Qualifications

- a. The HDPE Installation Subcontractor shall be experienced in all aspects of HDPE geomembrane handling, storage, and installation. The Installation Subcontractor shall have successfully installed at least 1 million ft² of HDPE geomembrane within the last 5 years.
- b. The Installation Subcontractor shall employ a field installation supervisor experienced in the installation of HDPE geomembrane liner. The installation supervisor shall meet the requirements as specified in Section

1.4.p. The Installation Subcontractor shall be subject to the approval of Bechtel and authorized as a qualified installer by the liner manufacturer.

2.1.3 Material Testing

- a. The HDPE geomembrane shall be tested in conformance with the manufacturer's testing procedures prior to shipment from the manufacturing plant to ensure that the physical and chemical properties (see Table 1) of the finished product are in conformance with these specifications.

In addition, conformance testing of geomembrane presented in Table 2 are also required. Acceptable test values for these tests shall be as indicated in Table 1. The FML shall be sampled and tested in conformance with the manufacturer's written quality assurance plan and in conformance with this specification. At a minimum, the test frequency shall be one (1) of each test for every 50,000 ft² of membrane produced for this project. The machine direction of each sample shall be clearly marked with indelible ink.

Within 2 weeks of award of Contract, the Installation Subcontractor shall also provide a certified statement (Certificate of Compliance) from the manufacturer that the geomembrane to be used meets the physical and chemical properties presented in Table 1. In addition, one coupon measuring 3 feet in length by the full width of the geomembrane roll per every 100,000 ft² of geomembrane produced shall be retained intact by the manufacturer until construction of the final cover system, for which the geomembrane is used, is complete. The machine direction of each sample shall be clearly marked in indelible ink. These coupons shall be submitted to Bechtel upon request.

- b. Unless otherwise indicated, all field and laboratory testing of sheet geomembrane materials shall be performed by the manufacturer or an independent laboratory, approved by Bechtel, with materials furnished by and at the expense of the Contractor.
- c. If the average test value of any individual lot sampling unit (one roll of material) does not meet one or more specification values, the entire lot (total number of rolls to be deployed at the pond) shall be re-sampled and tested; the lot sampling unit which failed the initial testing will be rejected prior to resampling the lot. The entire lot will be rejected if all the lot sampling units fail the initial testing or if the average test value for any individual lot sampling unit from the re-sample do not meet one or more of the acceptable specification values.

Table 1
Physical Properties of HDPE Geomembrane

Property	ASTM Test Method	Acceptable Test Results	Unit
Gauge (nominal)	D 5199	60	mils
Thickness	D 5199	54	mils (min)
Density	D 1505	0.935	g/cm ³
Elongation at break	D 638	500	%
Elongation at yield	D 638	12	%
Tensile strength at break	D 638	220	lb/in
Tensile strength at yield	D 638	120	lb/in
Tear resistance initiation	D 1004	40	lb
Carbon black content	D 1603 or D 4218	2 - 3	%
Carbon black dispersion	D 5596	Category 1 or 2	--
Puncture resistance	D4833	100	lb
Environmental stress crack	D 5397	200	hr (min)

Note: Above values are minimum average roll values (MARVs) unless otherwise noted.

Table 2
Conformance Testing Requirements for HDPE Geomembrane

Property	ASTM Test Method
Thickness	D 5199
Tensile properties	D 638
Tear resistance	D 1004
Puncture Resistance	D 4833
Density ¹	D 1505

¹ A minimum of one (1) density test shall be performed for each resin batch used.

3 EXECUTION

3.1 INSPECTION OF SHEET GEOMEMBRANE AT JOBSITE

- a. The Contractor shall be responsible for the inspection of the geomembrane panels upon its arrival at the job site. Should panels show damage from transit, they shall be so identified by the Contractor and set aside for either return to the manufacturer or repaired in accordance with manufacturer's recommendations.
- b. During unrolling of the geomembrane panels, the Contractor shall visually inspect the geomembrane sheet surface. Any faulty areas shall be repaired by the Contractor using the pre-approved techniques. Such repairs shall be recorded on the shop drawings (record) and reported to Bechtel by means of a Daily QC log per Section 3.5. At any point in the work, if the Daily QC log has not been submitted, Bechtel has the right to stop the geomembrane installation at the cost of the Contractor until the Daily QC log is submitted.

3.2 PROTECTION OF SURFACE TO RECEIVE FML

The geomembrane is to be installed over an installed Geosynthetic Clay Liner (GCL). Care shall be taken to ensure that the installed GCL is not damaged by the geomembrane installation. Vehicular traffic is not allowed on top of the installed GLC and FML liners. Equipment used to install and weld the geomembrane shall be subject to approval by Bechtel and GCL manufacturer, prior to the start of geomembrane installation. Geomembrane installation equipment shall also conform to the geomembrane manufacturer's requirements.

Any damages to the GCL during the installation of the geomembrane shall be repaired using GCL manufacturer-approved repair methods at the expense of the Contractor.

3.3 INSTALLATION

3.3.1 General

- a. The limits of the HDPE geomembrane shall be as shown on the drawings. The geomembrane shall be laid out and installed in accordance with the most stringent of these specifications, applicable panel installation drawings approved by Bechtel or the manufacturer's recommendations. The geomembrane shall be installed by the geomembrane manufacturer or

manufacturer-approved installer. The installer shall take precautions that newly placed FML is not damaged during FML placement.

- b. All geomembrane shall be installed in a generally downslope manner to minimize the potential of surface water flowing beneath the placed geomembrane. The geomembrane panels shall be placed to permit termination at the edge of the final cover within the perimeter anchor trenches as shown on the drawings. The anchorage geometry, backfill material, method of backfilling, and sequence shall be approved by Bechtel.
- c. The geomembrane shall be installed in a relaxed condition and shall be free of tension or stress upon completion of the installation. Stretching of the geomembrane during installation will not be allowed.
- d. A representative of the geomembrane's manufacturer shall be required to oversee portions of the installation. At a minimum, the representative shall observe and inspect installation procedures for QC conformance during the first day of membrane installation, during first seaming event, during the first day of geonet/geotextile installation, and during the first day of soil placement above the installed geosynthetic materials.

3.3.2 Field Panel Placement

The geomembrane placement shall be coordinated with the GCL placement activities. The geomembrane shall be installed in a sequence conforming to the cover protection requirements of the underlying GCL layer as specified in Specification P4-S-5 and to the following requirements:

- a. The geomembrane shall be placed over the installed GCL in such a manner as to ensure minimum handling. The geomembrane panels shall be of such lengths and widths and shall be placed in such a manner as to minimize field seaming. Only those panels of liner material that can be anchored and sealed together that same day shall be unpacked and placed in position.
- b. Perimeter anchorage excavation and any preparation shall be completed before liner installation begins. All anchorages shall be prepared and maintained so as to preclude ponding of surface or subsurface water in trenches and to promote positive drainage away from anchorage locations.
- c. Sandbags or rubber tires may be used as required to hold down the panels in position during installation. The Installation Subcontractor shall take all precautions as necessary to eliminate surface damage during installation.

Any and all damages to the geomembrane shall be repaired as specified in Section 3.3.2.h at the expense of the Contractor.

- d. Field seaming shall only be performed when the sealed areas can be kept dry and in such a manner so as to prevent dust, dirt, or other foreign material from contaminating the seam. No field seaming will be allowed when the temperature measured within 6 inches of the liner surface is below 45 °F or above 100 °F unless otherwise approved by Bechtel. Seaming activities shall be coordinated with the GCL installation.
- e. All seams shall be welded. Seams shall be overlapped at a minimum of 3 inches for extrusion welding and 4 inches for fusion welding, or a greater overlap if recommended by the manufacturer or warranted by field conditions. Welds shall be fusion-welded using an automatic double hot-wedge machine. Extrusion welds using a hand-held extrusion welder will only be used where needed for repairs or as approved by Bechtel. Welding devices shall have controls to regulate temperature to compensate for on-site conditions.
- f. In addition to the qualification requirements set forth in Section 1.4.p, each welder shall be qualified by welding a test sample similar to the field weld to be used. A field peel test, which has a Film Tearing Bond (FTB) break, shall be performed to test the integrity of the sample weld and welding machine temperature settings. The trial weld shall be repeated, in its entirety, when any of the trial weld samples fail. When repeated trial welds fail, the welding apparatus and welder shall not be used for welding until the reason for the sample failure is identified and corrected.

Welders must conduct a minimum of 6 feet of successful warm-up weld each day, checked by peel test, before commencing welding for the day. Each welder shall use only the specific welding equipment he was tested with for welding the geomembrane. Test strips or trial seams shall also be made twice per day or shift (for example, at the beginning of the work shift and after the lunch break). Trial seams shall also be made whenever personnel or equipment are changed, when climate conditions reflect wide changes in geomembrane temperature, or when other conditions occur that could affect seam quality.

- g. Passage of construction equipment, other than that required for placement and welding of the geomembrane over exposed GCL and FML surface, is prohibited at any time during construction and after the liner has been placed.
- h. Any tears, rips, or puncture of the liner during the installation shall be repaired by patching with a patch that extends at least 6 inches beyond

each edge of the defect (For example, if a 4-inch square hole requires patching, the patch must measure the size of the hole, plus 6 inches on every side, or 16 inches square.) and in accordance with the manufacturer's recommended procedure at the expense of the Contractor. Small tears (less than one inch long), pin holes, or other localized flaws may be spot welded. If Bechtel determines that patching of the damaged geomembrane becomes excessive, the entire roll will be rejected.

- i. When installing the geomembrane, care shall be taken to minimize seam length. No more than three sheets may meet at any point unless special circumstances warrant and the approval of Bechtel is obtained in writing. Where more than three seams meet, the area shall be covered by a patch at least 4-foot square.
- j. Seams, which run parallel to the anchor trench and are either inside or in immediate vicinity of the trench shall be minimized.
- k. The deployed geomembrane shall not have excessive slack to the point where permanent creases fold over upon themselves, either during placement or seaming.

3.3.3 HDPE Boot Installation (Penetration)

Geomembrane penetrations shall be sealed with a HDPE boot installed in accordance with manufacturer's standard installation instructions. HDPE boots shall be prefabricated at the manufacturer's plant, all seams and boots shall be factory leak-tested, and the testing records shall be submitted to Bechtel for approval prior to delivery to the jobsite. HDPE boot shall be welded to the geomembrane in accordance with Section 3.3.2 and seal to the penetration with sealant and stainless steel clamp, unless otherwise shown on the Design Drawings.

3.4 TESTING AND QUALITY CONTROL

3.4.1 Non-destructive Seam Continuity Testing

- a. All fusion joined seams shall be visually examined for voids or imperfect bonds.
- b. The Contractor shall non-destructively test all field seams, including repair seams, over their full length using a vacuum test unit, air pressure (for double-fusion seams only), or other approved methods. Non-destructive testing shall be carried out as the seaming progresses and not at completion of all field seaming.

c. Vacuum Testing

The equipment shall, at a minimum, comprise the following:

- A vacuum box assembly consisting of a rigid housing, a transparent viewing window, a soft neoprene gasket attached to the bottom, port hole or valve assembly, and a gauge to indicate chamber vacuum.
- A steel vacuum tank and pump assembly equipped with a pressure controller and pipe connections.
- A rubber pressure/vacuum hose with fittings and connections.

Vacuum testing shall consist of placing the vacuum box assembly over the liner seam. The suction chamber shall be connected to the vacuum pump. A foaming agent shall be applied to the seam area under test to indicate possible leaks. The seam shall be maintained under 5 psig suction for a minimum of 10 seconds. All areas where soap bubbles appear shall be marked. The test areas shall have a minimum 3-inch overlap from the previous section.

Defective seams found during the testing shall be repaired and retested. Such tests and adjustments shall be repeated until the seam is leak-free, and in the opinion of Bechtel, the repairs are satisfactory and complete. All repairs shall be made by and at the Contractor's expense.

d. Air Pressure Testing (for double seam with an enclosed space)

The equipment shall consist of the following:

- An air pump (manual or motor driven) equipped with pressure gauge capable of generating and sustaining pressure over 35 psi and mounted on a cushion to protect the liner.
- A rubber hose with fittings and connections.
- A sharp hollow needle or other approved pressure feed device.
- A pressure gauge with an accuracy of 1 psi.

The test procedure shall consist of the following steps:

- Seal both ends of the seam to be tested.
- Insert needle or other approved pressure feed device into the channel created by the double-wedge weld.

- Energize the air pump to a minimum pressure of 30 psi or 1/2 psi per mil of liner thickness, whichever is greater; close valve and sustain pressure for at least 5 minutes.
- If pressure loss exceeds 3 psi or does not stabilize, locate faulty area and repair as described in these specifications.
- Puncture opposite end of seam to release air. If blockage is present, locate and test seam on both sides of blockage.
- Remove needle or other approved pressure feed device and seal penetration holes by extrusion welding.

3.4.2 Destructive Testing

- a. Random weld samples, selected by Bechtel, shall be removed from the installed welded sheeting at a frequency of one test location per 500 feet of seam length or as directed by Bechtel, whichever results in more test sample locations. The sampled locations shall be repaired in accordance with Section 3.3.2.h. Seam samples shall be tested by an independent testing laboratory at the Contractor's expense. The laboratory shall provide certified test results to the Contractor and Bechtel. The samples shall be tested in shear and peel in accordance with ASTM D 4437. For each sample, a minimum of four out of each five tested specimens shall meet the following requirements:
 - Bonded Seam Strength (Shear): equal to or greater than 208 lb/in
 - Peel adhesion: equal to or greater than 84 lb/in
 - All peel adhesion specimen break types shall be the "FTB" classification, which is defined as the break occurring in the polymer material (parent material), not in the weld.

The Contractor shall repair all areas damaged by sampling immediately after the sample is taken at no additional expense to Bechtel.

- b. If a seam fails to meet the requirements of Section 3.4.2.a, additional tests shall be taken 10 feet from each end of the original test location. This procedure will continue until samples from both ends pass. The weld between the acceptable samples shall be considered defective and repaired by capping the weld with a minimum 18-inch wide cap.
- c. All samples shall be numbered and marked with permanent identification, including the machine direction. The reason for taking the sample shall

also be indicated (such as statistical routine, suspicious feature, change in sheet temperature, etc.).

3.5 DAILY QUALITY CONTROL LOG

- a. The Contractor shall maintain a Daily QC log during all phases of the geomembrane installation. This log shall document the daily progression of the geomembrane installation from the delivery of the material to final acceptance. The log shall designate those construction activities that influence the integrity of the geomembrane during installation. The log, at a minimum, shall include entries and detailed documentation of the following:
 - Weather: temperature, winds, and precipitation.
 - Preparation activities, including removal of water and sediment, geomembrane cleaning, or underlying GCL repair.
 - Repairs and replacements.
 - Seaming activities, including name of welder(s) for each seam and any leakage detected in testing of that seam.
 - HDPE boot installation (penetration).
 - Results and locations of destructive testing performed as part of geomembrane installation, including corrective action taken.
 - Results and locations of non-destructive testing performed as part of geomembrane installation, including corrective action taken.
 - Equipment used to place and weld the geomembrane.
 - Inspection and backfilling of anchor trench.
 - Calibration dates of each piece of seaming equipment and seam test equipment.
 - Names of all personnel conducting work at the site.
 - Names, dates, and times for when the job site is visited by regulatory personnel, subcontractors or vendors, and the FMC Idaho, LLC personnel.

- Photographs of geomembrane installation, seaming, and field testing.
 - Deviations from the Construction Quality Assurance Plan, drawings and specifications.
- b. Prior to performing the work, the Contractor shall submit the Daily QC log format for approval by Bechtel.

3.6 INSPECTION

Bechtel will be present during the entire geomembrane material installation. Bechtel will also inspect the geomembrane material as it is placed. The Contractor shall provide access and support, as needed, for the inspection of the geomembrane material.

Inspection by Bechtel does not imply acceptance until all the requirements of this specification are met.

3.7 CLEANUP

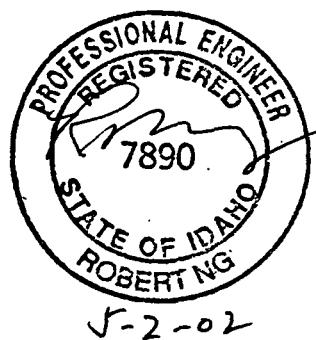
At the end of the work, all temporary working areas shall be restored to their original conditions with all temporary construction materials removed and the site cleaned.

FMC IDAHO, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

TECHNICAL SPECIFICATION
GEONET AND GEOTEXTILE



REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR
0	5/2/02	ISSUED FOR CONSTRUCTION	Ron	MJN	MM
ORIGIN	SF-BEI	TECHNICAL SPECIFICATION GEONET AND GEOTEXTILE POND FINAL COVER	JOB NO.	24230	SPECIFICATION NO.

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1 GENERAL

This specification includes requirements for the manufacture, supply, delivery, testing, storage, and installation of geonet and geotextile within the final cover system. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

1.1 RELATED SPECIFICATIONS

The following specifications contain requirements that relate to this specification:

- a. P4-S-4 Earthwork and Grading
- b. P4-S-5 Geosynthetic Clay Liner
- c. P4-S-6 Flexible Membrane Liner
- d. P4-S-8 Topsoil and Seeding
- e. P4-S-9 Temperature Monitoring Points

1.2 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.

1.3 MATERIAL TESTING PROCEDURES

Geosynthetic testing is evolving, should any of the test methods referenced in this specification become obsolete at the time of construction, more current test methods may be substituted at the discretion of Bechtel.

1.4 SUBMITTALS

The Contractor shall submit the following documents for Contractor's approval and acceptance prior to mobilization of geonet and geotextile installer unless otherwise noted:

- a. Geonet and geotextile placement method and plan, including jointing of the materials shall be submitted.

- b. Certified test reports presenting the results of the laboratory testing required by this specification shall be submitted to Bechtel for review and approval prior to the time the material is shipped. The submittals shall clearly show the date the material to be used for this project was manufactured. The Contractor must satisfy Bechtel that the material proposed meets every requirement of this specification.
- c. Within 2 weeks after award of the Contract, the Contractor shall submit samples of the materials to Bechtel for review and approval.
- d. The Contractor shall submit, within 2 weeks after award of the Contract, the manufacturer's recommended installation procedures for the placement and jointing requirements of the geonet and geotextile material, including procedures for repair.
- e. The Contractor shall provide Bechtel with Record (as-built) Drawings showing the limits of the installed geonet and geotextile material. The Record Drawings shall also indicate the corresponding panel and roll numbers, and where geotextile samples were taken for plant and field testing. The record drawings shall be submitted within 2 weeks of completion of geosynthetics placement.
- f. Any sewing of the geotextile shall be performed by trained personnel of the Contractor or his subcontractors; the geotextile installer must be approved by Bechtel. Any sewing must (1) use a thread type that is polymeric with chemical and ultraviolet light resistance properties equal to or greater than that of the geotextile itself, (2) use locking stitch, (3) use sewing thread color that contrasts with the color of geotextile being sewn, to allow ease of inspection, and (4) include a continuous seam. The Contractor may also be requested to submit training or experience records of the installer personnel for approval.

1.5 DELIVERY, STORAGE, AND HANDLING

- a. Material shall be delivered to the site only after Bechtel has approved the required submittals. Storage and handling of the materials shall conform to the manufacturer's recommendations and shall be accomplished in such a manner as to prevent damage to any part of the material. The Contractor shall provide labor and equipment to properly unload material upon arrival at the site. Owner will provide an area near the site for storage of material. The material shall be stored in a reasonably level, smooth, and well-drained area that is away from sharp objects or rocks which may puncture or otherwise damage the material; away from brush, oil, grease, or fuels;

and in an accessible area for inspection. Stacking shall always allow access to at least one end of each roll.

To prevent ultraviolet degradation of the material, the protective wrapper on each geotextile roll shall not be removed until the material is ready for use. Any rolls that are delivered without protective wrappers shall be rejected by Bechtel at the expense of the Contractor. Any rolls of geotextile that will not be installed within 14 days following delivery to the site shall be covered with tarps to protect the rolls from the elements.

2 MATERIALS

Geonet and geotextile shall meet all the requirements as specified herein, but may be supplied as a geocomposite or separate individual materials.

2.1 GEONET

2.1.1 The physical properties of the geonet shall be as specified in Table 1.

Table 1
**Mechanical and Hydraulic Properties
of Geonet**

Property	ASTM Test Method	Required Minimum Value ¹	Unit
Specific gravity	D 1505	0.94	g/cm ³
Carbon black content	D 1603 or D 4218	2	%
Transmissivity (1.0 gradient at 15,000 psf (min) compressive load)	D 4716	0.001	m ² /sec
Tensile strength (machine direction)	D 5035	25	lb/in

¹ Minimum average roll values (MARV).

2.1.2 Manufacturer Qualifications

The geonet manufacturer(s) shall be specialist(s) in the manufacturing of polyethylene geonet and shall have produced and manufactured a minimum of 1 million ft² of said geonet that was used in successful installations.

2.1.3 Conformance Testing

- a. Geonet shall be tested by the manufacturer prior to shipment to ensure that the physical and mechanical properties of the finished product are in accordance with these specifications. The required material properties, test methods, values, and units are presented in Table 1. The geonet shall be sampled and tested in conformance with the manufacturer's written quality assurance plan and in conformance with this specification. At a minimum, conformance tests shall be performed one per every 200,000 ft² of geonet produced. In addition, one coupon 3 feet in length by the width of the entire geonet roll for every 200,000 ft² of geonet produced shall be retained by the manufacturer until construction of the final cap is complete. These coupons shall be submitted to Bechtel upon request.
- b. Unless otherwise indicated, material testing shall be performed by the manufacturer or an approved independent geosynthetics testing laboratory; the materials shall be furnished by and at the expense of the Contractor.
- c. If the average test values of any individual lot sampling unit (one roll of material) do not meet one or more specification values, the entire lot (total number of rolls to be deployed at the pond) shall be re-sampled and tested; the lot sampling unit that failed the initial testing will be rejected prior to resampling the lot. The entire lot will be rejected if all the lot sampling units fail the initial testing or if the average test values for any individual lot sampling unit from the re-sample do not meet one or more of the acceptable specification values.

2.1.4 Laboratory Testing

Unless otherwise indicated, testing shall be performed by the manufacturer or an approved independent geosynthetics testing laboratory with materials furnished by the Contractor and at the expense of the Contractor.

2.1.5 Visual Inspection During Installation

During deployment of the geonet, the Contractor shall perform visual inspections of the material surfaces. Bechtel will also perform its own visual inspections in addition to those by the Contractor. Any faulty areas relating to material integrity, uniformity, and seam overlap shall be repaired by the Contractor using techniques recommended by the manufacturer, pre-approved by Bechtel, and included in these specifications, whichever is the more stringent. Such repairs shall be reported to Bechtel by means of the Daily Quality Control (QC) log. At any point in the work, if the Daily QC log has not been submitted to Bechtel, Bechtel has the right to stop the geonet installation activities at the expense of the Contractor.

2.2 GEOTEXTILE

Nonwoven, needle-punched geotextile shall be provided to meet the minimum physical and mechanical properties outlined in Table 2 and as designated on the drawings. The properties shown represent the minimum average roll values (MARVs) for the installed materials, unless otherwise indicated.

Table 2

Physical and Mechanical Properties of Geotextile

Property	Test Method	Required Minimum Value ¹	Unit
Unit weight	ASTM D 5261	(6 ²)	oz/yd ²
Puncture strength	ASTM D 4833	95	lbs
Grab strength (MD)	ASTM D 4632	150	lbs
Grab elongation	ASTM D 4632	50	%
Trapezoidal tear strength	ASTM D 4533	60	lb
Mullen Burst strength	ASTM D 3786	325	psi
UV Resistance ³ (@ 500 Hours)	ASTM D 4355	70	% strength retained
Apparent opening size	ASTM D 4751	0.212	mm (max)
Permittivity	ASTM D 4491	1.3	sec ⁻¹

¹ Minimum average roll values (MARVs).

² For information only; not a required property.

³ Manufacturer's certification required which states product exceeds required value for typical roll values.

2.2.1 Manufacturer Qualifications

The geotextile manufacturer(s) shall be specialist(s) in the manufacturing of polyester, polyethylene, and/or polypropylene geotextile (as applicable). In addition, the manufacturer shall have produced and manufactured a minimum of 5 million ft² of said geotextiles that were used in successful installations.

2.2.2 Conformance Testing

- a. The geotextile shall be tested by the manufacturer prior to shipment to ensure that the physical and mechanical properties of the finished product are in accordance with these specifications. The required material properties, test methods, values, and units are presented in Table 2. The geotextile shall be sampled and tested in conformance with the manufacturer's written quality assurance plan and in conformance with this specification. At a minimum, conformance tests shall be performed one per every 100,000 ft² of geotextile produced. In addition, one coupon 3 feet in length by the entire width of geotextile roll for every 100,000 ft² of geotextile produced shall be retained by the manufacturer until construction of the final cap is complete. These coupons shall be submitted to Bechtel upon request.
- b. Unless otherwise indicated, material testing shall be performed by the manufacturer or an approved independent geosynthetics testing laboratory; the materials shall be furnished by and at the expense of the Contractor.
- c. If the average test values of any individual lot sampling unit (one roll of material) does not meet one or more specification values, the entire lot (total number of rolls to be deployed at the pond) shall be re-sampled and tested; the lot sampling unit which failed the initial testing will be rejected prior to resampling the lot. The entire lot will be rejected if all the lot sampling units fail the initial testing or if the average test values for any individual lot sampling unit from the re-sample do not meet one or more of the acceptable specification values.

2.2.3 Laboratory Testing

Unless otherwise indicated, testing shall be performed by the manufacturer or an approved independent geosynthetics testing laboratory with materials furnished by and at the expense of the Contractor.

2.2.4 Visual Inspection During Installation

During deployment of the geotextile, the Contractor shall carry out visual inspections of the material surfaces. Bechtel will also perform its own visual inspections in addition to those by the Contractor. Any faulty areas relating to material integrity, uniformity, rips or tears, and seam overlap shall be repaired by the Contractor using techniques as recommended by the manufacturer, pre-approved by Bechtel, and included in these specifications, whichever is the more stringent. Such repairs shall be reported to Bechtel by means of the Daily QC log. At any point in the work, if the Daily QC log has not been submitted to Bechtel,

Bechtel has the right to stop the geotextile installation activities at the expense of the Contractor.

3 EXECUTION

3.1 GEONET INSTALLATION

- a. The geonet shall terminate in a perimeter anchor trench at the locations shown on the drawings and in accordance with manufacturer's recommended details.
- b. Panels (rolls or roll segments) shall be overlapped 6 inches minimum and joined using electrical plastic cable ties at an average frequency of one every 6 feet on center along the length of the panel. End-to-end joining of panels on slopes shall be minimized, but when necessary, the panels shall be joined by using plastic cable ties at a frequency of one every 12 inches on center.
- c. The geonet shall not be attached to the geomembrane.
- d. Care shall be taken during installation of the geonet to avoid damage or disturbance of the underlying geosynthetic layers.
- e. Any material placed on top of the geonet shall be done in such a manner so as not to damage the geonet or any underlying materials.
- f. Trimming of geonet shall be performed using only upward- cutting hook blades.

3.2 GEOTEXTILE PLACEMENT

- a. Geotextile shall be placed at the locations and to the limits shown on the drawings. The geotextile are to be jointed by overlapping the panels with a minimum of 18 inches or sewn with a minimum overlap of 4 inches. Cross-slope joints shall be avoided as much as possible. Geotextile shall be laid out in such a way that the panels are perpendicular to the underlying Geosynthetic Clay Liner (GCL) panels.
- b. Care shall be taken during installation of the geotextile to avoid damage or disturbance of the underlying geosynthetic layers.
- c. A minimum of 12 inches of the sand filter material shall be placed, immediately above the geotextile, in accordance with Specification P4-S-4, Section 3.4.3, to protect the underlying geosynthetic layers from

subsequent construction activities. The material shall be spread in the same direction as the fabric is joined and perpendicular to the GCL seams.

- d. During periods of high winds, sandbags or other methods approved by the manufacturer(s) shall be used by the Contractor to temporarily secure any exposed geotextile in place.
 - e. During placement, care must be taken not to entrap, either within or beneath geonet and geotextile, potentially harmful materials (stones, dirt, water, etc.) that could damage the geomembrane, clog the drains or filters, or hamper subsequent seaming. Once deployed, a visual examination shall be performed to ensure the surface of the geotextile is free of potentially harmful materials.
 - f. Trimming of geotextile shall be performed using only upward-cutting hook blades.

3.3 COVERING GEOTEXTILES

- a. All geotextile shall be covered by sand filter material within 14 calendar days, following removal of their protective wrapping and their placement in the field, to protect them from ultraviolet degradation. The Contractor shall stage construction activities to accomplish this schedule. Any geotextile left exposed longer than the 14 calendar days shall, at Bechtel's direction, be removed and replaced at the expense of the Contractor.

3.4 DAILY QUALITY CONTROL LOG

- a. The Contractor shall maintain a Daily QC log during all phases of geonet and geotextile installations. This log shall document the daily progression of the installations from the delivery of the materials to final acceptance. The log shall designate those construction activities that influence the integrity of the materials during installation. The log, at a minimum, shall include entries and detailed documentation of the following:

 - Weather: temperature, winds, and precipitation.
 - Preparation activities, including removal of water, or sediment.
 - Repairs and replacements.
 - Equipment used to place the geonet and geotextile.
 - Inspection and backfilling of anchor trench.

- Names of all personnel conducting work at the site.
 - Names, dates, and times for when the jobsite is visited by regulatory personnel, subcontractors or vendors, and the FMC Idaho, LLC personnel.
 - Deviations from the Construction Quality Assurance Plan, drawings and specifications.
- b. Prior to performing the work, the Contractor shall submit the Daily QC log format for approval by Bechtel.

3.5 INSPECTION

Bechtel will be present during the entire geonet and geotextile installations. Bechtel will also inspect the materials as they are placed. The Contractor shall provide access and support, as needed, for the inspection of the geonet and geotextile materials.

Inspection by Bechtel does not imply acceptance until all the requirements of this specification are met.

3.6 CLEANUP

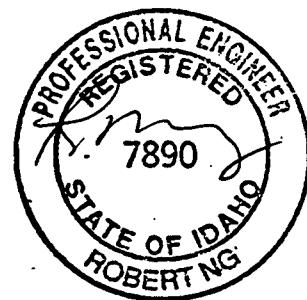
At the end of the work, all temporary working areas shall be restored to their original conditions with all temporary construction materials removed and the site cleaned.

FMC IDAHO, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

TECHNICAL SPECIFICATION
TOPSOIL AND SEEDING



✓-2-02

REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR
0	5/2/02	ISSUED FOR CONSTRUCTION	Ran	MJW	MS
ORIGIN		REASON FOR REVISION	JOB NO.	24230	
 SF-BEI		TECHNICAL SPECIFICATION TOPSOIL AND SEEDING FOR POND FINAL COVER	SPECIFICATION NO.	P4-S-8	REV. 0
			SHEET 1 OF 13		

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1 GENERAL

This specification describes the requirements for furnishing and placement of topsoil and completing the seeding of a final cover over the existing ponds at FMC Idaho, LLC's plant in Pocatello, Idaho. Seed will be placed by the drill seeding method. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

1.1 RELATED SPECIFICATIONS

The following specification contains requirements that relate to this specification:

- a. P4-S-4 Earthwork and Grading
- b. P4-S-9 Temperature Monitoring Points (Wells)

1.2 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.

1.3 SUBMITTALS

The Contractor shall submit the following documents for Bechtel's approval and acceptance prior to mobilization:

- a. Details of all supplied products (i.e., imported topsoil, fertilizer, seed, seed mix, supplemental organic matter, straw, including name of supplier).
- b. Sample of all supplied materials including imported topsoil, if applicable.
- c. Analytical data of the proposed topsoil from an agricultural soils laboratory.
- d. Certificates bearing the manufacturer's guaranteed analysis and physical or chemical make-up of the materials.

1.4 STORAGE AND HANDLING

- a. Topsoil shall be stored on site in area designated by Bechtel prior to spreading.
- b. Fertilizer and lime (if required) shall not be stored with any other landscape materials.
- c. On-Site storage of materials shall be only in areas designated or as approved by Bechtel.
- d. The seed containers and containers of all products to be used in this operation shall be stored immediately in a dry, weather- and damp-proof structure. Any seed or product, which has become wet, moldy, or is otherwise damaged in transit or storage will not be acceptable.

1.5 PERSONNEL

Seeding shall be performed by personnel familiar with procedures required of their trade and shall be supervised by a qualified foreman.

1.6 SEQUENCE OF WORK/SCHEDULE

Seeding shall not begin until Contractor receives approval to proceed from Bechtel. Contractor shall be responsible for scheduling the work and obtaining the necessary approvals. Seeding shall be performed only at either of the following periods and the surfaces to be seeded shall be protected until vegetation is established as specified in Subsection 3.1:

- a. Late Fall: Prior to initial snow fall, when day time temperatures do not rise above 40°F; this could cause seed germination prior to the onset of winter.
- b. Spring: When ground snow has melted and prior to the conclusion of spring rains that are needed for germination.

1.7 QUALITY

All work shall be of the highest quality and shall be subject to the approval of Bechtel. Any work that does not meet the requirements of this specification and the approval of Bechtel shall be removed by the Contractor immediately and replaced with work that is acceptable. Removal of defective work and replacement will be at the expense of the Contractor.

2 EQUIPMENT AND MATERIALS

2.1 EQUIPMENT

Conventional earth-moving and seeding equipment shall be used for the construction of the topsoil layer over the final cover. All equipment shall be decontaminated prior to arrival at the site, in good working condition, and suitable for its intended use.

Soil stabilization(pulverizing) equipment may be required to sufficiently break up frozen or over-compacted topsoil to ensure proper mixing of soil additives and performance of seeding operations.

2.2 MATERIALS

2.2.1 General

All materials shall be of standard, approved first-grade quality and shall be in prime condition when installed and accepted. Any commercially processed or packaged materials shall be delivered to the site in the original unopened containers bearing the manufacturer's guaranteed analysis and dealer's label.

2.2.2 Topsoil

a. General Qualifications

Composition - Use only locally obtained fertile, friable, well-drained soil, of uniform quality. The soil shall be free of stones over 1-inch diameter, sticks, oils, chemicals, plaster, concrete and other materials deleterious for the purposes of a planting medium. Some, or all, of the topsoil material may be furnished by the Owner. It is the responsibility of the Contractor to verify and ensure that all requirements of these specifications are satisfied, including all testing and amendment additives and mixing as specified herein.

b. Testing

- **Parasites -** Test all soils that have been used for agricultural purposes within the prior 12 months for parasitic nematodes. Soils shall be acceptable if the parasitic nematode population is less than 200 per 50 cubic centimeters of soil. Do not artificially dry soil prior to testing.
- **Herbicide -** Perform a radish/ryegrass growth trial as directed by Bechtel if herbicide contamination is suspected.

- c. Areas to receive topsoil shall be as shown on the design drawings.
- d. Topsoil: The Contractor shall perform tests and analysis as required to ensure Owner or Contractor furnished topsoil meets the standards specified under Section 2.2.2.a., including the following:
 - Analysis - Obtain an agricultural suitability analysis of the proposed topsoil for each soil source from a State of Idaho (or equivalent) certified soils laboratory at Contractor's cost. This analysis is to include recommended amendments as required to support the growth of the plants specified in the seed mix.
 - Acceptance - Submit soils analysis and recommendations to Bechtel for acceptance. Amend topsoil per accepted soils analysis report.
 - Samples - Bechtel reserves the right to take samples of the topsoil delivered to the site for testing to verify conformance to the specifications.
 - Pea Gravel - Clean, durable natural stone or rock with 100% passing the 3/8-inch sieve and 98% retained on the #10 sieve.
 - Rejected Topsoil - Immediately remove rejected topsoil off the site at Contractor's expense.

2.2.3 Seed

- a. Seed mixture shall be noxious-weed free, with the percent of purity and germination rate as specified in 2.2.3.b. All seed shall be re-cleaned Grade A "new crop" seed. The dealer may mix the seed provided a guaranteed statement of composition of moisture and percentages of purity and germination of each variety is attached to the sealed container. If the germination rates of any of the dealer's seeds are less than the rates specified in Table 1, then the weight per acre of those seeds shall be increased such that the specified rate of viable seed is provided.
- b. Seed mix to be as specified in Table 1, supplied by S & S Seeds, 5690 Casitas Pass Road, Carpenteria, CA 94553-2205 (phone no. 805-684-0436, FAX no. 805-684-2798) or approved equal. The seed mix was developed based on local climatic conditions in conjunction with past experiences of vegetation at the site locality and predominately consists of vegetation native to the area.

- c. Application rate of seed mix: 46.5 pounds per acre.

Table 1

Seed	Lb/acre	% of Mix	Min. Pure/Germ
Indian Ricegrass	4	8.6	98/85
Rubber Rabbitbrush	4	8.6	10/65
Covar Sheeps Fescue	10	21.5	98/85
Great Basin Sagebrush	3	6.5	25/50
Sand Dropseed	2	4.3	90/75
Needle and Thread Grass	1	2.1	60/50
Lewis Blue Flax	1	2.1	98/70
Desert Globemallow	0.5	1.1	98/50
Sulfur Buckwheat	0.5	1.1	25/25
California Poppy	0.5	1.1	98/80
Wheat Hybrid	20	43.0	90/80
Totals	46.5	100	

2.2.4 Fertilizer

The type and quantity of fertilizer shall be determined from the specified agricultural suitability analysis.

2.2.5 Supplemental Organic Matter

- a. Supplemental organic matter, if required by the agricultural suitability analysis, shall consist of approved compost, peat, or equivalent. Alternative mulches will be considered for approval by Bechtel.
- b. Supplemental organic matter shall be certified to be free of noxious weeds.
- c. Weight specifications of this material from suppliers and for all applications shall refer only to air dry weight of the organic material. A minimum of four representative samples of the proposed material shall be collected and submitted to a qualified laboratory for determination of the percentage of organic material. The application rate of the proposed material shall be increased to reflect the average non-organic portion.
- d. The need for and application rate of supplemental organic matter shall be determined from the specified agricultural suitability analysis. For bidding purposes only, the application rate shall be assumed to be 15 tons of organic matter per acre.

- e. The proposed material shall be tested by a qualified laboratory to determine the quantity of available Nitrogen and Phosphorus on a per-acre basis. The amount of Nitrogen or Phosphorus in the fertilizer required by subsection 2.2.4 shall be reduced by one pound per acre for each four pounds per acre of available Nitrogen or Phosphorus, respectively, in the proposed organic material. If the amount of available Nitrogen in the proposed organic material is more than four times the rate required by subsection 2.2.4, then that material shall be considered unacceptable.

2.2.6 Straw

- a. The straw to be crimped to the finished surface shall be certified to be free of noxious weeds.
- b. Application rate: 2 tons per acre.

3 EXECUTION

3.1 GENERAL

Prior to any application of topsoil, Contractor shall obtain approval of Bechtel for the completed underlying soil layer. Similarly, prior to any seeding, Contractor shall ensure that all finish grading in the area to be seeded has been completed and approved by Bechtel.

The area to be seeded is that shown on the drawings to receive topsoil and any grass area disturbed during construction and as directed by Bechtel. All topsoil and disturbed grass areas are to be protected by application of erosion control materials.

3.2 TOPSOIL SPREADING

3.2.1 Spreading of Topsoil

- a. Verification: Do not commence spreading of topsoil prior to acceptance by Bechtel of underlying soil layer.
- b. Topsoil Depth: Minimum depth of 42 inches after natural settlement and light rolling. Topsoil is to be placed in 12-inch maximum loose lifts. Pea gravel and any required supplemental organic material are to be incorporated into the top 12 inches of topsoil. The pea gravel material shall be added to the topsoil with a pug mill or other method as approved by Bechtel. The amount of pea gravel shall be $15 \pm 3\%$ by weight of the

topsoil mix. If pug mill is chosen, the pug mill and mixing process shall conform to the following requirements:

- Each material shall be measured by weighing. The weighing of each material shall be a distinct operation.
 - A metering device shall measure and control any added water.
 - Material retention time within the pug mill box shall be sufficient to assure a uniform mix.
- c. Placement: Do not place topsoil under muddy conditions.
- d. Topsoil Testing: Tests for the following specified in-place topsoil properties shall be conducted by an authorized independent test laboratory at no extra cost to Owner. Each test shall be conducted at a frequency of one for every 5,000 cubic yards of topsoil placed but not less than one per lift of material placed.

Soil Property	Test
Capillary-Moisture relationship	ASTM D 3152
Saturated Hydraulic Conductivity	ASTM D 5084

Bechtel will evaluate the test results and determine the acceptability of the topsoil based on the following:

Soil Property	Acceptable Value
Saturated Hydraulic Conductivity per ASTM D 5084	$< 9.35 \times 10^{-4}$ cm/s
Relative Hydraulic Conductivity vs. Degree of Saturation curve based on Van Genuchten Parameters derived from the Capillary-Moisture relationship per ASTM D 3152	Below curve plotted in Figure 1

The topsoil layer shall be modified by the addition of suitable topsoil to a thickness hydraulically equivalent to that of a topsoil layer meeting the above requirements should the in-place topsoil not satisfy the above requirements as directed by Bechtel. The cost for additional topsoil and re-testing will be paid as extras.

3.2.2 Amending of Topsoil

Amending of imported topsoil shall be determined from the specified agricultural suitability analysis. The following additives may or may not be required. The application rates shown are to be used for the add and deduct unit price for bidding purposes only and should not be included in the total bid price:

Application - Incorporate per acre

30 cubic yards Nitrogen - Treated Sawdust

100 pounds 30-30-0 (N-P-K) Commercial Fertilizer, slow release

1,000 pounds Dolomite Lime

Spread amendments on the previously placed topsoil by approved methods and thoroughly mix to a depth of three inches or as recommended by the agricultural suitability analysis.

3.3 DRILL SEEDING

The seed shall be drilled to a depth of $\frac{3}{4}$ to 1 inch uniformly at the rate specified in Subsection 2.2.3.c.

3.4 STRAW CRIMPING

After drilling the seed, straw shall be uniformly placed at the rate specified in Subsection 2.2.6.b and crimped into the topsoil using suitable equipment.

3.5 PROTECTION OF WORK

The seeded area shall be protected against trespassing and from damage at all times. If areas are damaged, they shall be reseeded at the Contractor's expense. No work shall be executed in or over the seeded area without proper safeguards. Protective barriers shall be removed at time of final acceptance.

3.6 INSPECTION

3.6.1 At the completion of work, the Contractor shall request a preliminary inspection by Bechtel to determine the condition of the seeding.

A final inspection shall be requested 48 hours in advance after seed germination. The Contractor and Bechtel will be present for the inspection. Seeded areas considered ready for final inspection shall show a uniform smooth ground surface without eroded ruts or gullies and evidence of uniform seed germination.

3.6.2 Acceptance:

If the installation is found satisfactory, Bechtel will approve the work in writing.

If the installation is found unsatisfactory, Bechtel will submit a punch list of conditions to correct by and at the Contractor's expense. The Contractor is responsible for requesting additional inspections after the conditions of the punch list have been corrected.

3.7 REPLACEMENT

Seed shall be replaced in any area, including washout gullies and/or slopes, where growth has not initiated during the first rainy season, November through April, following initial application. Washout gullies will require amended topsoil to fill washouts, and finish grading to this specification and Specification P4-S-4 prior to reseeding. These replacements shall be at no additional cost to Bechtel.

3.8 DAILY QUALITY CONTROL LOG

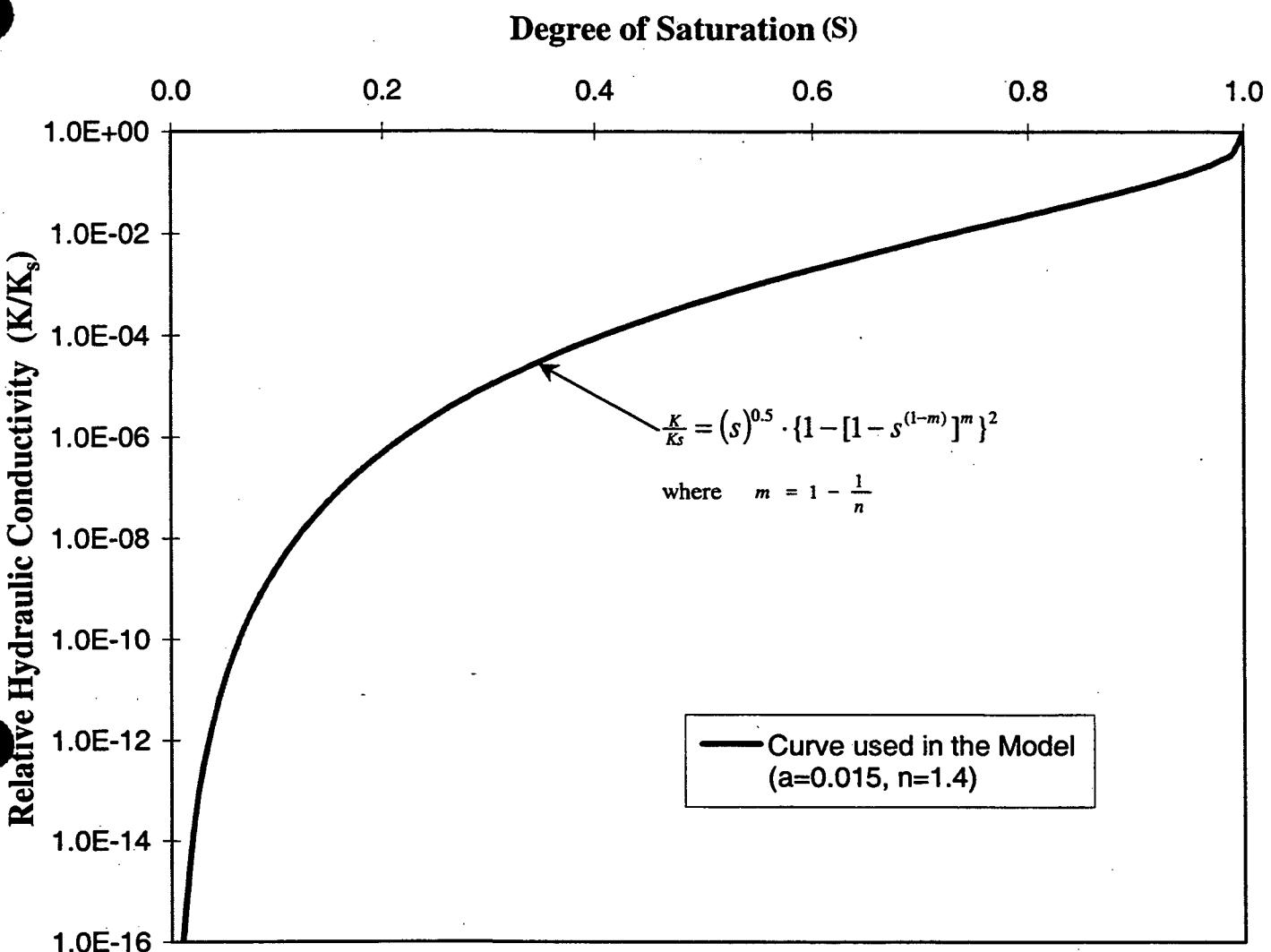
- a. The Contractor shall maintain a Daily QC log during all phases of topsoil installation and seeding operation. This log shall document the daily progression of the work from the delivery of the topsoil and seeding materials to final acceptance. The log shall designate those construction activities that influence the development and growth of plants for the vegetated cover during installation. The log, at a minimum, shall include entries and detailed documentation of the following:
 - Weather: temperature, winds, and precipitation.
 - Preparation activities, including soil amendments.
 - Topsoil spreading.
 - Equipment used for seeding.
 - Repairs and replacements of topsoil and seeded areas.
 - Photographs of the topsoil and seeding installation.
 - Names of all personnel conducting work at the site.
 - Names, dates, and times for when the jobsite is visited by regulatory personnel, subcontractors or vendors, and the FMC Idaho, LLC personnel.

- Deviations from the Construction Quality Assurance Plan, drawings and specifications.
- b. Prior to performing the work, the Contractor shall submit the Daily QC log format for approval by Bechtel.

3.9 CLEANUP

All areas of work shall be kept clean, neat, and orderly at all times.

At the end of the work, all temporary working areas shall be restored to their original conditions with all temporary construction materials removed and the site cleaned.



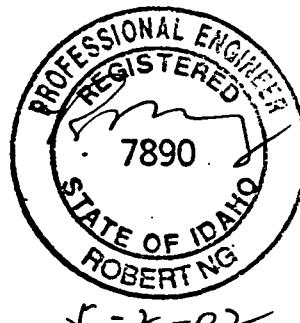
Soil Characteristic Curve

Figure 1

FMC IDAHO, LLC

POCATELLO, IDAHO

TECHNICAL SPECIFICATION AND SCOPE OF WORK
FOR INSTALLATION OF
TEMPERATURE MONITORING POINTS (WELLS)



5-2-02

REV.	DATE	REASON FOR REVISION	BY	CH'K	APPR
0	5/2/02	ISSUED FOR CONSTRUCTION	RW	MJW	2004
ORIGIN			JOB NO.	24230	
 SF-BEI		TECHNICAL SPECIFICATION TEMPERATURE MONITORING POINTS FINAL POND COVER	SPECIFICATION NO.		
			P4-S-9		
			REV. 0		
			SHEET 1 OF 8		

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1 GENERAL

This specification describes the requirements for Temperature Monitoring Points (TMPs) to be installed within a final cover over ponds at the FMC Idaho, LLC plant in Pocatello, Idaho. The TMPs will be used to monitor temperature underneath the final cover and will allow for gas sampling. Work will be performed in accordance with the Construction Quality Assurance Plan, Construction Drawings and task-specific health and safety plan.

1.1 SCOPE OF WORK

TMPs will be installed at locations as shown on the Design Drawings. The TMPs are installed in the cap area to monitor temperature near the pond solids and sand fill interface.

A typical construction profile of the TMP is shown on the Design Drawings. Each TMP will be installed to the depths as shown on the Design Drawings. Outer casings will be installed during drilling activities associated with TMP installation. The installation of the TMPs will entail drilling boreholes, installation of outer casing, and TMP sensor casing, installation of filter pack, and completion of the well.

All the TMPs shall be completed above grade using protective casings with lockable caps as shown on the Design Drawings, or approved equal, to protect the TMPs from any inadvertent damages while allowing ready access for sampling and repairs. The protective casing will be attached to the concrete at the base.

1.2 RELATED SPECIFICATIONS

The following specifications contain requirements that relate to this specification:

- a. **P4-S-4 Earthwork and Grading**
- b. **P4-S-5 Geosynthetic Clay Liner**
- c. **P4-S-6 Flexible Membrane Liner**
- d. **P4-S-7 Geonet and Geotextile**
- e. **P4-S-8 Topsoil and Seeding**

1.3 TMP INSTALLER REQUIREMENTS

The execution of this work shall be performed by competent workers under the direct supervision of an experienced well driller. Any soil cuttings generated during TMP installation activities shall be placed as subsoil within the limit of final cover of the pond unless otherwise specified herein. Any soil cuttings encountered that contain elemental phosphorus, as evidenced by smoking or burning, shall be containerized and disposed at a permitted off-site facility. All casing and other TMP materials shall be of compatible materials to prevent reaction between components of the completed TMP. All accessories required for satisfactory completion of the TMPs shall be essentially standard products of reliable manufacturers regularly engaged in the production of such equipment.

1.4 DEFINITIONS

- a. Owner: FMC Idaho, LLC.
- b. Bechtel: Bechtel Environmental, Inc. and any of its authorized representatives, hereby acting as agent for FMC Idaho, LLC.
- c. Contractor: The party to whom the Contract for the work described herein has been awarded and any of its authorized representatives.
- d. Temperature Monitoring Point: A temperature monitoring point (TMP), referred throughout this specification, is a temperature monitoring well that is capable of providing access for continuous measurement of temperature underneath the closure cap at approximately the waste/fill interface.

1.5 SUBMITTALS

The Contractor shall submit the following documents for Bechtel's approval and acceptance prior to mobilization or as otherwise noted:

- a. Work Plan: The Contractor shall submit a proposed plan for installing TMPs before beginning work. The work plan for installing the TMPs must be no less stringent than these specifications. The plan shall include, but not be limited to, the proposed method of boring and equipment to be used, details on proposed casing, grouting materials, filter pack materials, bentonite backfill materials and any equipment necessary for completion of the TMPs. No work shall be performed until the work plan has been approved and no deviation from the approved work plans will be permitted without prior approval of Bechtel. Details of specific methods to be employed to control potential contamination or pollution arising from TMP installation activities shall be included.

- b. Permits: The Contractor shall submit copies of all permits, licenses, or other requirements necessary for execution of the work.
- c. Temperature Monitoring Point Completion Record: The Contractor shall prepare a TMP completion record indicating completion details including, at a minimum, ground elevation, total well depth below grade, thermowell depth below grade, depth below grade to top of filter pack, thickness of bentonite seal, and stick-up above grade to the top of the monitoring head for each TMP.

1.6 ENVIRONMENTAL PROTECTION

The Contractor shall take all precautions necessary to prevent contamination of the ground surface or of surface waters resulting from installation of the monitoring point.

1.7 ABANDONMENT OF TMPs

In the event that the Contractor must abandon a TMP because of loss of tools or for any other cause, the Contractor, at the instruction of Bechtel, shall remove the monitoring point materials from the borehole and fill the abandoned hole from the bottom of the hole to ground surface with bentonite-cement grout placed with a tremie.

2 MATERIALS

- 2.1 MONITORING POINT OUTER CASING** (hereafter referred to as “outer casing”): Each TMP well outer casing shall be constructed of standard weight carbon steel pipe, ASTM A 53, Type S, in the size and depth as shown on the Design Drawings. Casing shall be either a single piece construction or pipe sections that are welded together or connected with threaded joints. Slip-type connections will not be permitted.
- 2.2 MONITORING POINT WELL CASING:** Each monitoring point well casing (thermowell) shall consist of a Schedule 40 PolyVinyl Chloride (PVC) pipe, size as designated on the Design Drawings, extending down to a depth below ground surface as shown on the Design Drawings. PVC pipe shall conform to ASTM D1785. Separate sections of PVC casing shall be connected with threaded joints. The bottom one-foot of the PVC casing shall be screened appropriately.
- 2.3 FILTER PACK:** The filter pack sand shall be composed of round, hard water-worn silica sand, free of flat or elongated pieces, organic matter, or other foreign

- matter. The sand shall be Colorado Silica Sand 10-20, or approved equal, and shall be a product of a commercial sand and gravel manufacturer.
- 2.4 **BENTONITE BACKFILL:** The bentonite backfill shall consist of 1/4 to 3/8-inch (typical) bentonite pellets, which shall be hydrated insitu with potable water at the ratio specified by the manufacturer.
- 2.5 **MONITORING HEAD:** The monitoring head shall be constructed on a 3-inch 150# flat face flange and include one sampling port for gas monitoring as shown on the Design Drawings. The sample port shall be supplied with a 3/8-inch shutoff ball valve and a 2-foot section of 1/4-inch Poly-Propylene tubing with 1/4-inch stainless steel compression fitting for connecting to Owner's gas sampler. The Temperature Transmitter shall be mounted on top of the monitoring head.
- 2.6 **GROUT SEAL:** The grout shall consist of a Portland Type I cement/bentonite/water ratio of 94 lbs/4 lbs/7.8 gallons.
- 2.7 **PROTECTIVE CASING:** All TMP stations shall be completed above grade using a protective casing with a lock and lockable cap as shown on the Design Drawings. The casing shall be sized to allow easy access for gas sampling and maintenance.
- 2.8 **Resistance Temperature Detector (RTD):** RTD shall conform to requirements as specified in data sheet.

3 EXECUTION

3.1 TMP CONSTRUCTION

- 3.1.1 **Drilling of Borehole:** Drilling of the borehole will be conducted using a hollow stem auger or other approved equipment. The well shall be drilled straight, plumb and circular from the bottom. The borehole shall be drilled to the depth shown on the Design Drawings.
- 3.1.2 **Installation of TMP Casing:** When the borehole has been completed and outer casing installed, the depth to the bottom of the borehole shall be measured using a weighted measuring tape. All depths shall be recorded relative to the ground surface at the borehole location. The PVC thermowell will then be inserted into the borehole. The thermowell shall be assembled first. Before lowering the thermowell into the borehole, the sand filter pack shall be poured into the bottom of the borehole for about three inches. Then, the thermowell shall be lowered into the hole by a method that will allow for control of the rate of fall of the thermowell. The thermowell shall not be dropped or allowed to fall uncontrolled

into the borehole. The end of the thermowell should rest firmly on the bottom of the borehole.

- 3.1.3. Installation of Filter Pack: After the thermowell has been lowered into the outer casing, the thermowell shall be centered in the outer casing and the filter pack shall be placed between the thermowell and the wall of the outer casing (centering devices shall not be used). The sand shall be installed around the thermowell by pouring the sand into the outer casing. The height of the sand shall be continuously measured. The sand shall not be added at a rate that will cause "bridging" between the thermowell and the outer casing. The filter pack shall be installed continuously until the sand has been placed to a height of three feet above the bottom of the thermowell. The depth to the top of the filter pack shall be measured relative to the ground surface with a weighted tape and recorded.
- 3.1.4 Installation of Bentonite Pellets: Following the installation of the filter pack, a bentonite seal shall be placed directly on top of the filter pack and completely filling the annular space between the thermowell and the outer casing. The bentonite seal shall be installed by pouring 1/4 to 3/8-inch bentonite pellets down the outer casing to allow the pellets to flow on to the top of the filter pack. The depth to the bentonite pellets shall be measured relative to ground surface and the addition of bentonite shall terminate when two feet of bentonite has been installed. The bentonite pellets shall then be hydrated with potable water according to the manufacturer's specifications. The depth to the top of the bentonite shall be measured relative to the ground surface with a weighted tape and recorded.
- 3.1.5 Installation of Grout Seal: The remaining annular space between the thermowell and the outer casing shall be filled with grout from the top of the hydrated bentonite pellets to the top of the outer casing. The grout shall be mixed in a grout mixer with potable water in the ratio specified in Subsection 2.6. The grout shall then be installed by inserting a tremie pipe down the inside of the outer casing and forcing the grout into the annulus between the casings starting from the top of the bentonite pellets and moving up toward the ground surface. Installation of this grout shall be done continuously in such a manner as to ensure that the entire annular space is filled in one operation.
- 3.1.6 Installation of GCL and HDPE Seals: The penetration of the outer casing through the GCL and HDPE membrane shall be sealed as shown on the drawings. The HDPE boot shall be welded to HDPE liner and sealed to the outer casing with sealant and stainless steel band.
- 3.1.7 TMP completion: The TMP sensor element, monitoring head, and protective casing shall be constructed and installed as shown on the Design Drawings.

- 3.2 **CLEAN UP:** Upon completion of the monitoring well construction and other incidentals, all debris and surplus materials resulting from the work shall be removed in accordance with appropriate disposal requirements.

DATA SHEETS
and ENGINEERING GUIDES

ASTARIS IDAHO, LLC
POCATELLO, IDAHO
PHASE IV PONDS

INSTRUMENT DATA SHEETS

JOB NO. 24230

<u>Data Sheet No.</u>	<u>No. of Sheets</u>	<u>Title</u>
DS-J-01	1	Gas Detectors
DS-JP-11S-1	1	Pond 11S Pressure (Absolute) Transmitter
DS-JP-12S-1	1	Pond 12S Pressure (Absolute) Transmitter
DS-JP-13S-1	1	Pond 13S Pressure (Absolute) Transmitter
DS-JP-14S-1	1	Pond 14S Pressure (Absolute) Transmitter
DS-JT-11S-1	1	Pond 11S RTD Temperature Transmitters
DS-JT-12S-1	1	Pond 12S RTD Temperature Transmitters
DS-JT-13S-1	1	Pond 13S RTD Temperature Transmitters
DS-JT-14S-1	1	Pond 14S RTD Temperature Transmitters
11S-DS-JF-001	1	Pond 11S Turbine Flowmeters
12S-DS-JF-001	1	Pond 12S Turbine Flowmeters
13S-DS-JF-001	1	Pond 13S Turbine Flowmeters
14S-DS-JF-001	1	Pond 14S Turbine Flowmeters
11S-DS-Pump-001	1	Pond 11S Pump Lift Station
12S-DS-Pump-001	1	Pond 12S Pump Lift Station
13S-DS-Pump-001	1	Pond 13S Pump Lift Station
14S-DS-Pump-001	1	Pond 14S Pump Lift Station

FMC
POCATELLO, IDAHO
PHASE IV PONDS
INSTRUMENT DATA SHEET

GAS DETECTORS

SHEET <u>1</u> OF <u>1</u>	
DATA SHEET NO.	REV.
DS-J-01	
CONTRACT 24230	DATE
REQ. - P.O.	
BY	CHK'D
	APPR.

1	Tag Number	AE/AIT-001	AE/AIT-002	AE/AIT-003	
2	Service	GAS MONITORING WELL BOTTOM	GAS MONITORING WELL TOP	GAS MONITORING WELL BOTTOM	
3	Application	Portable Monitor	Portable Monitor	Portable Monitor	
4	Function	Sample/ Display/ Alarm	Sample/ Display/ Alarm	Sample/ Display/ Alarm	
5	Monitored Gas	Phosphine (PH ₃)	Hydrogen (H ₂)	Hydrogen Cyanide (HCN)	
6	Anticipated Concentration				
7					
8	Monitoring Wells				
9	Sample Line Size/Depth	3/8" / 23'	3/8" / 1"	3/8" / 23'	
10	Sample Line Material	316 SS Tube	316 SS	316 SS	
11	Sample Connection Line Size/Length	1/4" / 2'	1/4" / 2'	1/4" / 2'	
12	Sample Connection Line Material	Polypropylene	Polypropylene	Polypropylene	
13	Sample Connection Size/Type	1/4" Compression Nut	1/4" Compression Nut	1/4" Compression Nut	
14	Sample Connection 'Tag'	"Lower Sample"	"Upper Sample"	"Lower Sample"	
15					
16	Detector Data				
17	Type	Hand Held Portable	Hand Held Portable	Hand Held Portable	
18	Sensor Type	MFR. STD.	MFR. STD.	MFR. STD.	
19	Range	0-1000 PPB	0-2000 PPM	0-20 PPM	
20	Resolution	10 PPB	1 PPM	0.1 PPM	
21	Gas	PH ₃	H ₂	HCN	
22	Repeatability	+/- 3%	+/- 3%	+/- 3%	
23	Linearity	+/- 2%	+/- 2%	+/- 2%	
24	Alarm Setpoint				
25	Low Battery	Yes	Yes	Yes	
26	Pump Out	Yes	Yes	Yes	
27	Audible Beeper	Yes	Yes	Yes	
28	Display: Type	LCD	LCD	LCD	
29	Lines/Characters	2 / 8	2 / 8	2 / 8	
30	Concentration	PPB or PPM	PPB or PPM	PPB or PPM	
31	Alarms	Yes	Yes	Yes	
32	Power: Type	Rechargeable Battery	Rechargeable Battery	Rechargeable Battery	
33	Min Operation	12 HR	12 HR	12 HR	
34	Electronic Rating	Intrinsically Safe	Intrinsically Safe	Intrinsically Safe	
35	Sample Pump	Internal	Internal	Internal	
36	Type	Rotary Vane	Rotary Vane	Rotary Vane	
37	Rating	400 CC/min	400 CC/min	400 CC/min	
38	Sample Connection	1/8" NPT - Note (1)	1/8" NPT - Note (1)	1/8" NPT - Note (1)	
39	Discharge Connection	Note (2)	Note (2)	Note (2)	
40	Accessories				
41	Storage Case	Yes	Yes	Yes	
42	Battery Charger	Yes	Yes	Yes	
43					
44	Manufacturer	Analytical Technology Inc. (or equal)	Analytical Technology Inc. (or equal)	Analytical Technology Inc. (or equal)	
45	Model Number	B16-32-1-1000-2	B16-18-1-2000-1	B16-22-1-0020-1	
46					
47	Notes:				
48	(1) To be provided w/ 1/8" x 1/4" NPT Male to Male adapter to mate with 1/4" NPT Compression Nut.				
49	(2) To be provided w/ connection adapter.				
50	* Manufacturer to specify.				

GENERAL		Pressure (Absolute) Instruments					
Instrument Number	11S-PT-001					Remarks	
Item No.							
Service	11S Cap Press						
Transmitter type	Absolute Pressure						
Mounting	2" Pipe Stand						
Operating Temperature Range	-40 to 85°C						
<i>Process Data</i>							
Process fluid	Air						
Max. pressure (in HgA)	26						
Max. temp (°F)	120						
Norm pressure (in HgA)	23						
Calibration pressure range (in HgA) (see note 1)	20 to 30						
Adjustable range* (in HgA)	0 to 55						
Element type	Capacitance Diaphragm						
Element material	316 SS						
Body material	Aluminum						
Process connection	½" NPT						
Fill liquid	N/A						
Drain/Vent Vlv material	N/A						
Armor material/Capillary material/Capillary length	N/A						
<i>Electrical</i>							
Area classification	Non-Hazardous						
Power supply	24 Vdc (2-wire)						
Electrical connection	½" NPT						
Output signal	4-20 mA						
Integral indicator	N/A						
Accuracy	0.2% Span						
Resolution	(S)						
NEMA rating req'd	NEMA 4X						
Air supply / Air connection / Airstet w/gauge	N/A						
Transmitter Manufacture/Model	Rosemount/ 1151AP Smart (see note 2)						
<i>ACCESSORIES</i>							
1. Mtg bracket w/mtg hardware	Required						
2. Two valve manifold (stainless steel)	Required						
Notes							
1. Certificate of calibration from the manufacturer is required. 2. Complete transmitter model number w/2-valve manifold is: 1151AP-5-S-22-B1-M7-Q4-T1413.							
Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.							
REV.	DATE	REVISION	BY	CHECK	APP		
	8/22/04	Issued for Purchase	MDB mJSB	BL			
PHASE IV PONDS, Pond 11S ASTARIS LLC Pressure (Absolute) Transmitter DATA SHEET		JOB NO. 24230	Rev. 0				
		Data Sheet No: DS-JP-11S-1	Sheet 1 of 1				

GENERAL		Pressure (Absolute) Instruments				
Instrument Number	12S-PT-001					Remarks
Item No.						
Service	12S Cap Press					
Transmitter type	Absolute Pressure					
Mounting	2" Pipe Stand					
Operating Temperature Range	-40 to 85°C					
<i>Process Data</i>						
Process fluid	Air					
Max. pressure (in HgA)	26					
Max. temp (°F)	120					
Norm pressure (in HgA)	23					
Calibration pressure range (in HgA) (see note 1)	20 to 30					
Adjustable range* (in HgA)	0 to 55					
Element type	Capacitance Diaphragm					
Element material	316 SS					
Body material	Aluminum					
Process connection	½" NPT					
Fill liquid	N/A					
Drain/Vent Vlv material	N/A					
Armor material/Capillary material/Capillary length	N/A					
<i>Electrical</i>						
Area classification	Non-Hazardous					
Power supply	24 Vdc (2-wire)					
Electrical connection	½ " NPT					
Output signal	4-20 mA					
Integral indicator	N/A					
Accuracy	0.2% Span					
Resolution	(S)					
NEMA rating req'd	NEMA 4X					
Air supply / Air connection / Airstet w/gauge	N/A					
Transmitter Manufacture/Model	Rosemount/ 1151AP Smart (see note 2)					
<i>ACCESSORIES</i>						
1. Mtg bracket w/mtg hardware	Required					
2. Two valve manifold (stainless steel)	Required					
Notes						
1. Certificate of calibration from the manufacturer is required. 2. Complete transmitter model number w/2-valve manifold is: 1151AP-5-S-22-B1-M7-Q4-T1413.						
Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.						
0	8/22/01	Issued for Purchase	MDB	ND	B	D.L.
REV.	DATE	REVISION	BY	CHECK		APP
	PHASE IV PONDS, Pond 12S ASTARIS LLC Pressure (Absolute) Transmitter DATA SHEET			JOB NO. 24230	Rev. 0	
	Data Sheet No: DS-JP-12S-1			Sheet 1 of 1		

GENERAL		Pressure (Absolute) Instruments			
Instrument Number	13S-PT-001				Remarks
Item No.					
Service	13S Cap Press				
Transmitter type	Absolute Pressure				
Mounting	2" Pipe Stand				
Operating Temperature Range	-40 to 85°C				
<i>Process Data</i>					
Process fluid	Air				
Max. pressure (in HgA)	26				
Max. temp (°F)	120				
Norm pressure (in HgA)	23				
Calibration pressure range (in HgA) (see note 1)	20 to 30				
Adjustable range* (in HgA)	0 to 55				
Element type	Capacitance Diaphragm				
Element material	316 SS				
Body material	Aluminum				
Process connection	½" NPT				
Fill liquid	N/A				
Drain/Vent Vlv material	N/A				
Armor material/Capillary material/Capillary length	N/A				
<i>Electrical</i>					
Area classification	Non-Hazardous				
Power supply	24 Vdc (2-wire)				
Electrical connection	½" NPT				
Output signal	4-20 mA				
Integral indicator	N/A				
Accuracy	0.2% Span				
Resolution	(S)				
NEMA rating req'd	NEMA 4X				
Air supply / Air connection / Airstat w/gauge	N/A				
Transmitter Manufacture/Model	Rosemount/ 1151AP Smart (see note 2)				

ACCESSORIES

1. Mtg bracket w/mtg hardware	Required
2. Two valve manifold (stainless steel)	Required

Notes

- Certificate of calibration from the manufacturer is required.
- Complete transmitter model number w/2-valve manifold is: 1151AP-5-S-22-B1-M7-Q4-T1413.

Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.

0	8/22/04	Issued for Purchase	MDB	MD3-	JR
REV.	DATE	REVISION	BY	CHECK	APP
	PHASE IV PONDS, Pond 13S ASTARIS LLC Pressure (Absolute) Transmitter DATA SHEET			Rev. 0	
				Data Sheet No: DS-JP-13S-1	
				Sheet 1 of 1	

GENERAL		Pressure (Absolute) Instruments				Remarks
Instrument Number	14S-PT-001					
Item No.						
Service	14S Cap Press					
Transmitter type	Absolute Pressure					
Mounting	2" Pipe Stand					
Operating Temperature Range	-40 to 85°C					
Process Data						
Process fluid	Air					
Max. pressure (in HgA)	26					
Max. temp (°F)	120					
Norm pressure (in HgA)	23					
Calibration pressure range (in HgA) (see note 1)	20 to 30					
Adjustable range* (in HgA)	0 to 55					
Element type	Capacitance Diaphragm					
Element material	316 SS					
Body material	Aluminum					
Process connection	½" NPT					
Fill liquid	N/A					
Drain/Vent Vlv material	N/A					
Armor material/Capillary material/Capillary length	N/A					
Electrical						
Area classification	Non-Hazardous					
Power supply	24 Vdc (2-wire)					
Electrical connection	½" NPT					
Output signal	4-20 mA					
Integral indicator	N/A					
Accuracy	0.2% Span					
Resolution	(S)					
NEMA rating req'd	NEMA 4X					
Air supply / Air connection / Airstet w/gauge	N/A					
Transmitter Manufacture/Model	Rosemount/ 1151AP Smart (see note 2)					
ACCESSORIES						
1. Mtg bracket w/mtg hardware	Required					
2. Two valve manifold (stainless steel)	Required					
Notes						
1. Certificate of calibration from the manufacturer is required.						
2. Complete transmitter model number w/2-valve manifold is: 1151AP-5-S-22-B1-M7-Q4-T1413.						
Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.						
REV.	DATE	Issued for Purchase	MDB	BY	CHECK	APP
	8/2/01	REVISION	MDB	BY	CHECK	APP
		PHASE IV PONDS, Pond 14S ASTARIS LLC Pressure (Absolute) Transmitter DATA SHEET	JOB NO. 24230		Rev. 0	
		Data Sheet No: DS-JP-14S-1		Sheet 1 of 1		

GENERAL		Resistance Temperature Instruments							
Instrument Number	11S-TE/TT-10	11S-TE/TT-11	11S-TE/TT-12	11S-TE/TT-13	Remarks				
Item No.									
Service		Pond 11S Monitoring Well Temp.	Pond 11S Monitoring Well Temp.	Pond 11S Monitoring Well Temp.	Pond 11S Monitoring Well Temp.				
P&ID		N/A	N/A	N/A	N/A				
Location/Environment		Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor				
<i>Process Data</i>									
Process variable	Well air temp.	Well air temp.	Well air temp.	Well air temp.					
<i>Transmitter</i>									
Type	Resistance	Resistance	Resistance	Resistance					
Electrical Area Classification	Non-hazardous	Non-hazardous	Non-hazardous	Non-hazardous					
Housing type / Material	NEMA 4	NEMA 4	NEMA 4	NEMA 4					
Calib. Range °C (see note 1)	0 - 35	0 - 35	0 - 35	0 - 35					
Input / Output Signal (Isolated)	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc					
Power supply	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)					
Electrical connection size	½" NPT	½" NPT	½" NPT	½" NPT					
Burnout	Up scale	Up scale	Up scale	Up scale					
Local Indicator / Scale Range	N/A	N/A	N/A	N/A					
Accuracy	±0.2%	±0.2%	±0.2%	±0.2%					
<i>Element</i>									
Sensor	RTD	RTD	RTD	RTD					
Type	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω					
Insulation / Sheath material	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS					
Number of wires	4	4	4	4					
Mounting configuration	Direct Immersion	Direct Immersion	Direct Immersion	Direct Immersion					
Leads / Lead wires	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle					
Screwed cover / Material	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum					
Nipple size / Mounting thread	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT					
Well or Tube	N/A	N/A	N/A	N/A					
Element length	13'-6"	16'-9"	17'-1"	17'-5"					
Xmtr manufacturer/model no.	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline					
Element manufacturer/model no.	Rosemount(S)	Rosemount(S)	Rosemount(S)	Rosemount(S)					
ACCESSORIES									
1)									
2)									
Notes									
1. Certificate of calibration from the manufacturer is required.									
2. Temperature assembly to mount vertically on a 3" 150# blind flange drilled and tapped for ½" NPT.									
3. Nipple coupling to be 3" nominal length (mfr. standard material). Mfr. to provide sheath protecting tube with sensor. Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.									
0	8/22/01	Issued for Purchase	MDB	MB	DZ				
REV.	DATE	REVISION	BY	CHECK	APP				
BECHTEL BEI	PHASE IV PONDS, Pond 11S ASTARIS LLC RTD Temperature Transmitters DATA SHEET			JOB NO. MR/PO NO. 24230	Rev. 0				
				Data Sheet No: DS-JT-11S-1	Sheet 1 of 1				

GENERAL		Resistance Temperature Instruments			
Instrument Number	12S-TE/TT-06	12S-TE/TT-07	12S-TE/TT-08	12S-TE/TT-09	Remarks
Item No.					
Service	Pond 12S Monitoring Well Temp.	Pond 12S Monitoring Well Temp.	Pond 12S Monitoring Well Temp.	Pond 12S Monitoring Well Temp.	
P&ID	N/A	N/A	N/A	N/A	
Location/Environment	Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor	
<i>Process Data</i>					
Process variable	Well air temp.	Well air temp.	Well air temp.	Well air temp.	
<i>Transmitter</i>					
Type	Resistance	Resistance	Resistance	Resistance	
Electrical Area Classification	Non-hazardous	Non-hazardous	Non-hazardous	Non-hazardous	
Housing type / Material	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Calib. Range °C (see note 1)	0 – 35	0 – 35	0 – 35	0 – 35	
Input / Output Signal (Isolated)	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	
Power supply	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)	
Electrical connection size	½" NPT	½" NPT	½" NPT	½" NPT	
Burnout	Up scale	Up scale	Up scale	Up scale	
Local Indicator / Scale Range	N/A	N/A	N/A	N/A	
Accuracy	±0.2%	±0.2%	±0.2%	±0.2%	
<i>Element</i>					
Sensor	RTD	RTD	RTD	RTD	
Type	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω	
Insulation / Sheath material	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS	
Number of wires	4	4	4	4	
Mounting configuration	Direct Immersion	Direct Immersion	Direct Immersion	Direct Immersion	
Leads / Lead wires	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle	
Screwed cover / Material	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum	
Nipple size / Mounting thread	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT	
Well or Tube	N/A	N/A	N/A	N/A	
Element length	14'-5"	17'-6"	18'-1"	17'-9"	
Xmtr manufacturer/model no.	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	
Element manufacturer/model no.	Rosemount(S)	Rosemount(S)	Rosemount(S)	Rosemount(S)	
<i>ACCESSORIES</i>					
1)					
2)					
Notes					
1. Certificate of calibration from the manufacturer is required.					
2. Temperature assembly to mount vertically on a 3" 150# blind flange drilled and tapped for ½" NPT.					
3. Nipple coupling to be 3" nominal length (mfr. standard material). Mfr. to provide sheath protecting tube with sensor. Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.					
0	8/22/01	Issued for Purchase	MDB (M)B	DR	
REV.	DATE	REVISION	BY	CHECK	APP
	PHASE IV PONDS, Pond 12S ASTARIS LLC RTD Temperature Transmitters DATA SHEET		JOB NO. MR/PO NO. 24230	Rev. 0	
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GENERAL		Resistance Temperature Instruments				
Instrument Number	13S-TE/TT-02	13S-TE/TT-03	13S-TE/TT-04	13S-TE/TT-05	Remarks	
Item No.		Pond 13S Monitoring Well Temp.	Pond 13S Monitoring Well Temp.	Pond 13S Monitoring Well Temp.	Pond 13S Monitoring Well Temp.	
Service		N/A	N/A	N/A	N/A	
P&ID		Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor	Monitoring Well/Outdoor	
Location/Environment						
<i>Process Data</i>						
Process variable	Well air temp.	Well air temp.	Well air temp.	Well air temp.		
<i>Transmitter</i>						
Type	Resistance	Resistance	Resistance	Resistance		
Electrical Area Classification	Non-hazardous	Non-hazardous	Non-hazardous	Non-hazardous		
Housing type / Material	NEMA 4	NEMA 4	NEMA 4	NEMA 4		
Calib. Range °C (see note 1)	0 - 35	0 - 35	0 - 35	0 - 35		
Input / Output Signal (Isolated)	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc	24Vdc / 4-20 mAdc		
Power supply	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)	24 Vdc (2 wire)		
Electrical connection size	½" NPT	½" NPT	½" NPT	½" NPT		
Burnout	Up scale	Up scale	Up scale	Up scale		
Local Indicator / Scale Range	N/A	N/A	N/A	N/A		
Accuracy	±0.2%	±0.2%	±0.2%	±0.2%		
<i>Element</i>						
Sensor	RTD	RTD	RTD	RTD		
Type	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω	Platinum 100Ω		
Insulation / Sheath material	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS	Teflon / 316 SS		
Number of wires	4	4	4	4		
Mounting configuration	Direct Immersion	Direct Immersion	Direct Immersion	Direct Immersion		
Leads / Lead wires	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle	Potted / Receptacle		
Screwed cover / Material	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum	Yes / Aluminum		
Nipple size / Mounting thread	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT	½" / ½" NPT		
Well or Tube	N/A	N/A	N/A	N/A		
Element length	18'-1"	21'-5"	21'-5"	21'-5"		
Xmtr manufacturer/model no.	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline	Rosemount / Model 444RL Alphaline		
Element manufacturer/model no.	Rosemount(S)	Rosemount(S)	Rosemount(S)	Rosemount(S)		
ACCESSORIES						
1)						
2)						
Notes						
1. Certificate of calibration from the manufacturer is required.						
2. Temperature assembly to mount vertically on a 3" 150# blind flange drilled and tapped for ½" NPT.						
3. Nipple coupling to be 3" nominal length (mfrr. standard material). Mfr. to provide sheath protecting tube with sensor. Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.						
0	8/2/01	Issued for Purchase	MDB <i>MDD</i>	<i>DJ</i>	CHECK	APP
REV.	DATE	REVISION	BY			
	PHASE IV PONDS, Pond 13S ASTARIS LLC RTD Temperature Transmitters DATA SHEET		JOB NO. MR/PO NO. 24230	Rev. 0		
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GENERAL		Resistance Temperature Instruments			
Instrument Number	14S-TE/TT-01				Remarks
Item No.					
Service	Pond 14S Monitoring Well Temp.				
P&ID	N/A				
Location/Environment	Monitoring Well/Outdoor				
<i>Process Data</i>					
Process variable	Well air temp.				
<i>Transmitter</i>					
Type	Resistance				
Electrical Area Classification	Non-hazardous				
Housing type / Material	NEMA 4				
Calib. Range °C (see note 1)	0 - 35				
Input / Output Signal (Isolated)	24Vdc / 4-20 mAdc				
Power supply	24 Vdc (2 wire)				
Electrical connection size	½" NPT				
Burnout	Up scale				
Local Indicator / Scale Range	N/A				
Accuracy	±0.2%				
<i>Element</i>					
Sensor	RTD				
Type	Platinum 100Ω				
Insulation / Sheath material	Teflon / 316 SS				
Number of wires	4				
Mounting configuration	Direct Immersion				
Leads / Lead wires	Potted / Receptacle				
Screwed cover / Material	Yes / Aluminum				
Nipple size / Mounting thread	½" / ¼" NPT				
Well or Tube	N/A				
Element length	23'-0"				
Xmtr manufacturer/model no.	Rosemount / Model 444RL Alphaline				
Element manufacturer/model no.	Rosemount(S)				
<i>ACCESSORIES</i>					
1)					
2)					
Notes					
1. Certificate of calibration from the manufacturer is required. 2. Temperature assembly to mount vertically on a 3" 150# blind flange drilled and tapped for ½" NPT. 3. Nipple coupling to be 3" nominal length (mfr. standard material). Mfr. to provide sheath protecting tube with sensor. Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.					
REV.	DATE	REVISION	MDB BY	CHECK	APP
	PHASE IV PONDS, Pond 14S ASTARIS LLC RTD Temperature Transmitters DATA SHEET			Rev. 0 JOB NO. MR/PO NO. 24230	
				Data Sheet No: DS-JT-14S-1 Sheet 1 of 1	

GENERAL		Turbine Flowmeters				
Instrument Number	11S-FE-001					Remarks
Meter Data						
Service	P11S Cap Drain					
Connection line size / pipe type	1-1/2" / HDPE					
Location/Environment	In-line					
Body rating (minimum)	150#					
Nominal flow range	2.5 – 20 GPM					
Accuracy	± 1% FS					
Linearity	± 1%					
End connections -(flange)	150# RF					
K Factor (cycles per volume unit)	(S)					
Materials: A) Body, Support, Flanges, B) Rotor	A) 316 SS B) 17-4 PH SST					
Pickup coil type	Magnetic					
Bearings: Type	Cryogenic ball					
Bearing/Shaf material	Tungsten Carbide or equal					
Enclosure type	NEMA 4X					
Process Data						
Fluid	Drain water					
Flow rate: Min. / Max. (GPM)	0 / 25					
Normal flow	20 GPM					
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI					
Operating temp.: Min. / Max.	33°F / 90°F					
Operating Specific Gravity	1.0					
Percent solids and type	Clear					
Secondary Instrument						
Tag No.	11S-FI/FQI-001					
Function	Remote totalizer/rate indicator					
Mounting	2" pipe stand					
Power supply	Lithium battery					
Rate indicator (GPM)	LCD, 6 digits					
Totalizer (gallons)	LCD, 8 digits					
Output range	N/A					
Enclosure NEMA rating	NEMA 4					
Input signal	Freq: 0 – 2500 Hz.					
Accuracy: Totalizer	± 1 count					
Accuracy: Rate indicator	± 1% FS					
Turbine flowmeter w/indicator Manufacturer / Model No. (see note 2)	Sponsler / SP1-1/2- CB-PHL-D-6-X					
ACCESSORIES						
1. One twenty foot connector cable Manufacturer / Model No.	Sponsler / S-2F-T-G- 2S-20					
Notes						
1. Certificate of calibration is required for the turbine flowmeter. 2. The totalizer/rate indicator is a Sponsler model no.: IT275N. 3. Sponsler Co., Inc., Westminster, South Carolina, 29693; Ph. No. (Toll Free: 1-800-258-1165). Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller. B = Buyer.						
0	8/22/01	Issued for Purchase	MDB	MDP	SL	
REV.	DATE	REVISION	BY		CHECK	APP
 BEI	Phase IV Ponds Astaris LLC Turbine Flowmeter DATA SHEET	JOB NO. 24230	Rev. 0			
		Data Sheet No: 11S-DS-JF-001	Sheet 1 of 1			

GENERAL		Turbine Flowmeters				Remarks
Instrument Number	12S-FE-001					
Meter Data						
Service	P12S Cap Drain					
Connection line size / pipe type	1-1/2" / HDPE					
Location/Environment	In-line					
Body rating (minimum)	150#					
Nominal flow range	2.5 – 20 GPM					
Accuracy	± 1% FS					
Linearity	± 1%					
End connections -(flange)	150# RF					
K Factor (cycles per volume unit)	(S)					
Materials: A) Body, Support, Flanges, B) Rotor	A) 316 SS B) 17-4 PH SST					
Pickup coil type	Magnetic					
Bearings: Type	Cryogenic ball					
Bearing/Shafit material	Tungsten Carbide or equal					
Enclosure type	NEMA 4X					
Process Data						
Fluid	Drain water					
Flow rate: Min. / Max. (GPM)	0 / 25					
Normal flow	20 GPM					
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI					
Operating temp.: Min. / Max.	33°F / 90°F					
Operating Specific Gravity	1.0					
Percent solids and type	Clear					
Secondary Instrument						
Tag No.	12S-FI/FQI-001					
Function	Remote totalizer/rate indicator					
Mounting	2" pipe stand					
Power supply	Lithium battery					
Rate indicator (GPM)	LCD, 6 digits					
Totalizer (gallons)	LCD, 8 digits					
Output range	N/A					
Enclosure NEMA rating	NEMA 4					
Input signal	Freq: 0 – 2500 Hz.					
Accuracy: Totalizer	± 1 count					
Accuracy: Rate indicator	± 1% FS					
Turbine flowmeter w/indicator Manufacturer / Model No. (see note 2)	Sponsler / SP1-1/2-CB- PHL-D-6-X					
ACCESSORIES						
1. One twenty foot connector cable Manufacturer / Model No.	Sponsler / S-2F-T-G-2S- 20					
Notes						
1. Certificate of calibration is required for the turbine flowmeter. 2. The totalizer/rate indicator is a Sponsler model no.: IT275N. 3. Sponsler Co., Inc., Westminster, South Carolina, 29693; Ph. No. (Toll Free: 1-800-258-1165). Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.						
0 REV.	07/22/01 DATE	Issued for Purchase REVISION	MDB <i>MDB</i> BY	DR CHECK	APP	
	Phase IV Ponds Astaris LLC Turbine Flowmeter DATA SHEET			JOB NO. 24230	Rev. 0	
				Data Sheet No: 12S-DS-JF-001	Sheet 1 of 1	

GENERAL		Turbine Flowmeters				Remarks
Instrument Number	13S-FE-001					
Meter Data						
Service	P13S Cap Drain					
Connection line size / pipe type	1-1/2" / HDPE					
Location/Environment	In-line					
Body rating (minimum)	150#					
Nominal flow range	2.5 - 20 GPM					
Accuracy	± 1% FS					
Linearity	± 1%					
End connections -(flange)	150# RF					
K Factor (cycles per volume unit)	(S)					
Materials: A) Body, Support, Flanges, B) Rotor	A) 316 SS B) 17-4 PH SST					
Pickup coil type	Magnetic					
Bearings: Type	Cryogenic ball					
Bearing/Shft material	Tungsten Carbide or equal					
Enclosure type	NEMA 4X					
Process Data						
Fluid	Drain water					
Flow rate: Min. / Max. (GPM)	0 / 25					
Normal flow	20 GPM					
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI					
Operating temp.: Min. / Max.	33°F / 90°F					
Operating Specific Gravity	1.0					
Percent solids and type	Clear					
Secondary Instrument						
Tag No.	13S-FI/FQI-001					
Function	Remote totalizer/rate indicator					
Mounting	2" pipe stand					
Power supply	Lithium battery					
Rate indicator (GPM)	LCD, 6 digits					
Totalizer (gallons)	LCD, 8 digits					
Output range	N/A					
Enclosure NEMA rating	NEMA 4					
Input signal	Freq: 0 - 2500 Hz.					
Accuracy: Totalizer	± 1 count					
Accuracy: Rate indicator	± 1% FS					
Turbine flowmeter w/indicator Manufacturer / Model No. (see note 2)	Sponsler / SPI-1/2- CB-PHL-D-6-X					
ACCESSORIES						
1. One twenty foot connector cable Manufacturer / Model No.	Sponsler / S-2F-T-G- 2S-20					
Notes						
1. Certificate of calibration is required for the turbine flowmeter. 2. The totalizer/rate indicator is a Sponsler model no.: IT275N. 3. Sponsler Co., Inc., Westminster, South Carolina, 29693; Ph. No. (Toll Free: 1-800-258-1165). Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.						
0	8/22/01	Issued for Purchase	MDB <i>MDP</i>	<i>JK</i>		
REV.	DATE	REVISION	BY	CHECK	APP	
	Phase IV Ponds Astaris LLC Turbine Flowmeter DATA SHEET			JOB NO. 24230	Rev. 0	
				Data Sheet No: 13S-DS-JF-001	Sheet 1 of 1	

GENERAL		Turbine Flowmeters			Remarks
Instrument Number	14S-FE-001				
Meter Data					
Service	P14S Cap Drain				
Connection line size / pipe type	1-1/2" / HDPE				
Location/Environment	In-line				
Body rating (minimum)	150#				
Nominal flow range	2.5 - 20 GPM				
Accuracy	± 1% FS				
Linearity	± 1%				
End connections -(flange)	150# RF				
K Factor (cycles per volume unit)	(S)				
Materials: A) Body, Support, Flanges, B) Rotor	A) 316 SS B) 17-4 PH SST				
Pickup coil type	Magnetic				
Bearings: Type	Cryogenic ball				
Bearing/Shft material	Tungsten Carbide or equal				
Enclosure type	NEMA 4X				
Process Data					
Fluid	Drain water				
Flow rate: Min. / Max. (GPM)	0 / 25				
Normal flow	20 GPM				
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI				
Operating temp.: Min. / Max.	33°F / 90°F				
Operating Specific Gravity	1.0				
Percent solids and type	Clear				
Secondary Instrument					
Tag No.	14S-FI/FQI-001				
Function	Remote totalizer/rate indicator				
Mounting	2" pipe stand				
Power supply	Lithium battery				
Rate indicator (GPM)	LCD, 6 digits				
Totalizer (gallons)	LCD, 8 digits				
Output range	N/A				
Enclosure NEMA rating	NEMA 4				
Input signal	Freq: 0 – 2500 Hz.				
Accuracy: Totalizer	± 1 count				
Accuracy: Rate indicator	± 1% FS				
Turbine flowmeter w/indicator Manufacturer / Model No. (see note 2)	Sponsler / SP1-1/2- CB-PHL-D-6-X				
ACCESSORIES					
1. One twenty foot connector cable Manufacturer / Model No.	Sponsler / S-2F-T-G- 2S-20				
Notes					
1. Certificate of calibration is required for the turbine flowmeter. 2. The totalizer/rate indicator is a Sponsler model no.: IT275N. 3. Sponsler Co., Inc., Westminster, South Carolina, 29693; Ph. No. (Toll Free: 1-800-258-1165). Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.					
0 REV.	8/24/01 DATE	Issued for Purchase REVISION	MDB <i>mg 95</i> BY	<i>D L</i> CHECK	APP
	Phase IV Ponds Astaris LLC Turbine Flowmeter DATA SHEET		JOB NO. 24230	Rev. 0	
	Data Sheet No: 14S-DS-JF-001			Sheet 1 of 1	

GENERAL		Pump Lift Station			Remarks
Instrument Number	11S-LS-001				
Pump Data					
Service / Type	Drain water / Vertical lift				
Connection line size / pipe type (inlet to sump)	6" / HDPE				
Connection line size / pipe type (outlet from sump)	1-1/2" / HDPE				
Nominal flow range	2.5 – 20 GPM				
Vertical lift	15 Ft.				
Sump storage volume	200 Gallons				
Impeller material/type	(S)				
Pump body Material	(S)				
Power supply	480V, 3φ, 60 Hz				
Control voltage	120 VAC, 1φ				
Motor starter / HP	Required / (S)				
Motor starter enclosure w/disconnect switch.	NEMA 4X				
H-O-A switch	Required				
High water level and low level pump switch control	Required				
Indicating lights on motor starter enclosure	Required				
Enclosure type	NEMA 4X				
Process Data					
Fluid	ground water				
Flow rate: Min. / Max. (GPM)	0 / 20				
Normal flow	20 GPM				
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI				
Operating temp.: Min. / Max.	33°F / 90°F				
Operating Specific Gravity	1.0				
Percent solids and type	Clear				
Sump Data					
Material	HDPE				
Size	(S)				
Installation	Below grade				
Level Switch Data					
Level switch type	(S)				
Material of construction	(S)				
Contact rating	(S)				

Notes

1. Performance curve of pump is required.

2..

Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.

0		8/22/01	Issued for purchase	MDB <i>mb</i>	<i>D.L.</i>	
REV.		DATE	REVISION	BY	CHECK	APP
			Phase IV Ponds Astaris LLC Pump Lift Station DATA SHEET	JOB NO. 24230		Rev. 0
				Data Sheet No: 11S-DS-Pump-001	Sheet 1 of 1	

GENERAL		Pump Lift Stations			Remarks
Instrument Number	12S-LS-001				
Pump Data					
Service / Type	Drain water / Vertical lift				
Connection line size / pipe type (inlet to sump)	6" / HDPE				
Connection line size / pipe type (outlet from sump)	1-1/2" / HDPE				
Nominal flow range	2.5 – 20 GPM				
Vertical lift	15 Ft.				
Sump storage volume	200 Gallons				
Impeller material/type	(S)				
Pump body material	(S)				
Power supply	480V, 3φ, 60 Hz				
Control voltage	120 VAC, 1φ				
Motor starter / HP	Required / (S)				
Motor starter enclosure w/disconnect switch.	NEMA 4X				
H-O-A switch	Required				
High water level and low level pump switch control	Required				
Indicating lights on motor starter enclosure	Required				
Enclosure type	NEMA 4X				
Process Data					
Fluid	ground water				
Flow rate: Min. / Max. (GPM)	0 / 20				
Normal flow	20 GPM				
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI				
Operating temp.: Min. / Max.	33°F / 90°F				
Operating Specific Gravity	1.0				
Percent solids and type	Clear				
Sump Data					
Material	HDPE				
Size	(S)				
Installation	Buried				
Level Switch Data					
Type	(S)				
Material of construction	(S)				
Contact rating	(S)				
Notes					
1. Performance curve of pump is required.					
2.					
Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.					
0	8/22/01	Issued for purchase	MDB	M9B	D.L.
REV.	DATE	REVISION	BY	CHECK	APP
	Phase IV Ponds Astaris LLC Pump Lift Station DATA SHEET		JOB NO. 24230	Rev. 0	
			Data Sheet No: 12S-DS-Pump-001	Sheet 1 of 1	

GENERAL		Pump Lift Stations				Remarks		
Instrument Number	13S-LS-001							
Pump Data								
Service / Type	Drain water / Vertical lift							
Connection line size / pipe type (inlet to sump)	6" / HDPE							
Connection line size / pipe type (outlet from sump)	1-1/2" / HDPE							
Nominal flow range	2.5 – 20 GPM							
Vertical lift	15 Ft.							
Sump storage volume	200 Gallons							
Impeller Material /type	(S)							
Pump body material	(S)							
Power supply	480V, 3φ, 60 Hz							
Control voltage	120 VAC, 1φ							
Motor starter / HP	Required / (S)							
Motor starter enclosure w/disconnect switch.	NEMA 4X							
H-O-A switch	Required							
High water level and low level pump switch control	Required							
Indicating lights on motor starter enclosure	Required							
Enclosure type	NEMA 4X							
Process Data								
Fluid	ground water							
Flow rate: Min. / Max. (GPM)	0 / 20							
Normal flow	20 GPM							
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI							
Operating temp.: Min. / Max.	33°F / 90°F							
Operating Specific Gravity	1.0							
Percent solids and type	Clear							
Sump Data								
Material	HDPE							
Size	(S)							
Installation	Below grade							
Level Switch Data								
Type	(S)							
Material of Construction	(S)							
Contact Rating	(S)							
Notes								
1. Performance curve of pump is required.								
2.. Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.								
0	07/22/01	Issued for Purchase	MDB	MB	DR			
REV.	DATE	REVISION	BY		CHECK	APP		
 BECHTEL BEI	Phase IV Ponds Astaris LLC Pump Lift station DATA SHEET			JOB NO. 24230	Rev. 0			
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GENERAL		Pump Lift Stations			Remarks
Instrument Number	14S-LS-001				
Pump Data					
Service / Type	Drain water / Vertical lift				
Connection line size / pipe type (inlet to sump)	6" / HDPE				
Connection line size / pipe type (outlet from sump)	1-1/2" / HDPE				
Nominal flow range	2.5 – 20 GPM				
Vertical lift	15 Ft.				
Sump storage volume	200 Gallons				
Impeller material /type	(S)				
Pump body material	(S)				
Power supply	480V, 3φ, 60 Hz				
Control voltage	120 VAC, 1φ				
Motor starter / HP	Required / (S)				
Motor starter enclosure w/ disconnect switch.	NEMA 4X				
H-O-A switch	Required				
High water level and low level pump switch control	Required				
Indicating lights on motor starter enclosure	Required				
Enclosure type	NEMA 4X				
Process Data					
Fluid	Drain water				
Flow rate: Min. / Max. (GPM)	0 / 20				
Normal flow	20 GPM				
Operating pressure / Back pressure	≈ 5 PSI / ≈ 1 PSI				
Operating temp.: Min. / Max.	33°F / 90°F				
Operating Specific Gravity	1.0				
Percent solids and type	Clear				
Sump Data					
Material	HDPE				
Size	(S)				
Installation	Below grade				
Level Switch Data					
Type	(S)				
Materials of Construction	(S)				
Contact Rating	(S)				
Notes					
1. Performance curve of pump is required.					
2..					
Enter "NA" if not applicable or not required. Enter in () source of information: S = Seller or verified by Seller, B = Buyer.					
0	8/22/01	Issued for purchase	MDB	J.L.	
REV.	DATE	REVISION	BY	CHECK	APP
	Phase IV Ponds Astaris LLC Pump Lift Station DATA SHEET		JOB NO. 24230	Rev. 0	
	Data Sheet No: 14S-DS-Pump-001			Sheet 1 of 1	

ENGINEERING GUIDES

ASTARIS, LLC

PHOSPHORUS PLANT

POCATELLO, IDAHO

ENGINEERING GUIDE
FOR
PACKAGED LIFT STATION (PUMP) SYSTEMS

A	08/22/01	Issued for Closure Plan Submittal			
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ORIGIN  SF-BEI	PHASE IV PONDS ENGINEERING GUIDE FOR LIFT STATION PACKAGE SYSTEMS	DOCUMENT NO.	REV.		
		24230- LP-P4-001	A		
		Page 1 of 9			

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		Page 1 of 9			

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**ENGINEERING GUIDE
FOR
PACKAGED LIFT STATION SYSTEMS**

PART 1 - GENERAL

1.01 WORK INCLUDED

- 1.01.1 Design, fabricate, furnish, test, and deliver a complete Lift Station pump system including associated motor/pump, wiring, piping, and/or tubing, required for the operation of the specified system and in accordance with this guide. These pump systems will be used for pumping ground water at the Astaris LLC plant in Pocatello, Idaho
- 1.01.2 Provide one set of special tools if other than standard tools are required to repair, maintain, or adjust the equipment.

1.02 WORK NOT INCLUDED

Receiving, installation, external connections, wiring and tubing between Seller's components unless connected devices are on the same skid, and acceptance testing.

1.03 SYSTEM DESCRIPTION

- 1.03.1 It is the intention of this guide is for equipment and installation conforms, as far as it is practical, to the Seller's standard offering. However, the Buyer reserves the right to select specific manufacturers for purposes of quality or of standardizing the instrumentation used in the plant. The Lift Station shall be in accordance with the attached Pond data sheets and Pond "Final Cap Sections & Details" drawings.
- 1.03.2 The Seller's control package shall be a complete stand-alone system, including controllers, instrumentation, local control panels, etc as required for the proper and safe operation of the system.
- 1.03.3 For electrical power supply for packaged equipment shall be as specified on the attached data sheets.
- 1.03.4 The following units shall be used for design parameters, calculations and scales. Refer to the principal technical specification for the system (English or metric) to be used.

	<u>English</u>	<u>metric</u>
a. Positive gauge pressure	inches H ₂ O or psig	bar or kPa gage
b. Vacuum	inches Hg or H ₂ O	bar, kPa or mm Hg

c.	Absolute pressure	inches Hg or psia	bar, kPa abs Or mm Hg
d.	Differential pressure	inches H ₂ O or psi	bar or kPa
e.	Temperature	degrees F	degrees C
f.	Flow: solids Liquids	ton/hr gal/min or LB/hr	tonne/hr l/min or kg/hr
g.	Level	inches, feet or percent	mm, m or percent

1.04 QUALITY ASSURANCE

Seller shall furnish instrument, control and electrical components that have been designed and manufactured to prevalent industry standards of quality, safety, maintainability and reliability.

1.05 SUBMITTALS

1.05.1 The Seller shall provide the following documents:

- a. Hard copy of all equipment used in the Sellers Lift station package. The information contained for each pump package shall include at least the following as applicable:
 - tag number
 - service description
 - schematic diagram
 - manufacturers literature
 - model numbers
 - setpoint
 - installation details as required for installing the pump package
 - calibration range of all instrumentation
- b. Control panel/cabinet wiring diagrams showing all wiring, instruments, and devices in their relative physical relationships, including the interconnecting wire numbers on the wire.
- c. Instruction manuals covering operational adjustment, maintenance, troubleshooting, repair, site storage, installation, and startup.

1.05.2 Include Buyers standard tag numbers on all documents as applicable

1.05.3 Identify the electrical load requirements (peak and continuous) for each of the power sources.

1.06 PROJECT/SITE CONDITIONS

Provide equipment suitable for the environmental conditions

- Temperature -33 to 104 °F
- Relative Humidity 100%- 5%
- Snow 20 lbs./Ft²

PART 2 - PRODUCT

- 2.01 Pump process conditions are shown on the attached Pond data sheet. Seller shall select pumps and tank volumes to satisfy the process requirements.
- 2.01.1 Provide enclosures for outdoors in accordance to the attached data sheet . Locate components away from maintenance areas, excessive vibration, and extreme temperature environments.
- 2.01.3 Provide electrical/controls enclosures with thermostatically controlled space heaters, where required, to maintain internal temperature above dew point.
- 2.01.4 Provide copper ground bus, where required, to effectively ground the entire structure in accordance with standard practice.
- 2.01.5 Enclosures shall be completely assembled at the factory so that the entire assembly is an operating unit, tested and ready for installation in the field.
- 2.01.6 Mount, connect and wire each device so that adjustment, maintenance, removal and replacement may be accomplished without interruption of service to adjacent but unrelated items and without placing undue stress on installed wiring or devices.

2.02 POWER SUPPLY AND OPERATION

- 2.02.1 The power supply to each pump package shall be 480 VAC, 3 phase 60 Hz from the Buyer's power supply. All other power supplies requirements for the Lift station operation shall be derived by the Seller from the 480 VAC supply. Step-down transformers (480/120 VAC) shall be housed within the control panel and adequately shielded for personnel protection.
- 2.02.2 The Lift station shall shut down automatically if the incoming line voltage is not adequate, and shall automatically restart to normal operation when normal voltage is restored. The pump control panel shall be equipped with a key-locking Hand -Off – Auto Selector Switch. Key is removable in the OFF and Auto position only. In the Auto position the pump operates based on liquid level within the sump. Liquid level deadband high/low setpoints shall be adjustable. In the Hand position the pump operates regardless of liquid level in the sump.

- 2.03 CONTROL AND INSTRUMENTATION WIRING**
- 2.03.1 Provide cables and wire sizes and types for power, controls, and instrument in accordance with standard practice.
 - 2.03.2 Provide No. 14 AWG minimum, copper stranded, for control transformer secondary leads and connect to short-circuiting type terminal blocks. Terminate conductors with compression type lugs.
 - 2.03.3 Terminate all circuits, including shields at terminal blocks. Provide 20 percent spare points, uniformly distributed.
 - 2.03.4 Terminate all wiring on one side of terminal blocks, leaving other side entirely free for Buyer's field cable connections. All terminal points must be capable of landing two No. 14 AWG wires with compression type lugs. Leave adequate space for field cables.
 - 2.03.5 Identify each internal wire at each end with Seller's wire number on a plastic sleeve or similar permanent marker.
 - 2.03.6 Do not connect more than two wires to one terminal point and jumper as necessary to avoid multiple connection of Buyer's conductors. Do not splice.
 - 2.03.7 Route wiring so that devices may be removed or serviced without disturbing wiring. 120 V ac power to each device shall originate at a terminal block, i.e., do not "daisy chain" power to instruments.
 - 2.03.8 Provide terminal blocks for connection to external circuits for devices mounted on skid-mounted equipment. These blocks shall be located for easy access. Run interconnecting wire in metallic conduit or flexible conduit if subjected to vibration. Use liquid-tight flexible conduit if outdoors.
- 2.04 POWER CABLE**
- 2.04.1 Size and install power cable in accordance with the National Electrical Code. Temperature rating shall be 90°C for continuous operation.
- 2.05 CONDUIT**
- 2.05.1 Conduit terminating at vibrating equipment shall be connected with flexible metal conduit. The maximum unsupported length shall be 36 inches (914 mm).
 - 2.05.2 Size and install conduit in accordance with National Electrical Code and IEEE 422.
- 2.06 GROUNDING**
- 2.06.1 Provide skid with two ground terminals for No. 4/0 ground cables for attachment to Buyer's ground. Grounding of equipment to skid shall be in accordance with NEC Article 250.

2.06.2 Seller is responsible for grounding of circuits that are completely within his scope of supply. Circuits, which are wired to terminal blocks for Buyer's connection, shall be left ungrounded.

2.07 MISCELLANEOUS ELECTRICAL DEVICES

2.07.1 Provide dry contacts suitably rated for the intended service.

2.07.2 Furnish pushbuttons and switches with standard sized nameplate color-coded as follows:

<u>Function</u>	<u>Color</u>
Start	Black
Stop	Red
Jog	Green
Reset	Yellow
Others	Black

2.07.3 Provide plug-in type control relays with dust cover and retaining strap if applicable

2.07.4 Provide indicating light color caps in accordance with the following:

Green: "On" to indicate motor running, device energized, valve open or partially open (not fully closed)

Red: "On" to indicate motor not running, device not energized, valve closed or partially closed (not fully open)

Amber: "On" to indicate warning, abnormal equipment or system status, system not in the steady-state mode

White: "On" to indicate power supply available in a supervisory manner or "auto"

2.07.5 Provide motor starters with thermal overloads per standard practice.

2.07.6 Provide surge protectors for solid-state equipment, if not inherent in the equipment design, to prevent damage from the effect of lightning strikes or other electrical transients normally encountered in power plant operation.

2.08 NAMEPLATES AND TAGGING

2.08.1 Each instrument or device shall be tagged in accordance with the Seller's standard tagging requirements. However, as a minimum, the tag shall be constructed of a suitable permanent material (preferably stainless steel), be permanently attached to the device, and shall contain the following information:

- P. O. Number
- P. O. Item Number
- Tag Number

Deviations from these requirements shall be brought to the attention of the Buyer.

PART 3 - EXECUTION

3.01 FLOWMETERS

- 3.01.1 For flowmeters and valve trim which could be damaged during flushing and/or steam blow, furnish flowmeters and trim which can be easily removed.
- 3.01.3 For each flowmeter and each set of trim requiring removal, attach a warning tag stating "Removal Required Prior to Flushing."

3.02 DELIVERY, STORAGE, AND HANDLING

- 3.02.1 Remove rust, scale, manufacturing residue, and foreign material so that equipment can be put into operation without further cleaning.
- 3.02.2 Cover or plug all openings for shipment and storage.
- 3.02.3 Brace equipment and provide protection to preclude damage during shipment.
- 3.02.4 Provide desiccant for equipment subject to damage from moisture. Identify equipment that is provided with internal desiccant.
- 3.02.5 Identify packaging with equipment name and number and purchase order number.
- 3.02.6 Identify loose equipment such as tools, spare parts, etc., with name and tag number of associated equipment.

3.03 SHOP TEST

- 3.03.1 Pressure test all pressure-retaining components.
- 3.03.2 In the case of measurement and control systems involving electronic transmission, a simulated input signal shall be applied and varied over the full range and each device shall be calibrated and checked for correct operation.
- 3.03.3 The Seller shall perform standard wiring test procedures in accordance with NEMA Standard Publication ICS-1. Wiring tests shall include point-to-point continuity tests or functional testing. The Seller shall be responsible for the correctness of his wiring and for the proper functioning of equipment provided.

- 3.03.4 Perform a high potential test of not less than 1,500 volts, 60 hertz for 1 minute to verify the insulation and clearance to ground are acceptable for all electrical components except solid-state devices.

DRAWINGS

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Appendix J

APPENDIX J

NOT USED

(CONSOLIDATION/SETTLEMENT ANALYSIS has been replaced by Calc. No. 24230-270-4, "Settlement Evaluation Final Cap".) See Appendix M

Appendix K

APPENDIX K
FIELD GEOTECHNICAL INVESTIGATION -
FMC PONDS 8E AND PHASE IV

**FIELD GEOTECHNICAL INVESTIGATION
FMC CORPORATION
EASTERN MICHAUD FLATS PROJECT
POCATELLO, IDAHO**

Submitted to:

***Bechtel Environmental, Inc.
San Francisco, California***

Submitted by:



Lakeland, Florida

BCI File No. 979704

August 1997



P.O. Box 5467
Lakeland, FL 33807-5467

(941) 667-2345
FAX: (941) 667-2662



August 22, 1997
BCI Project No. 979704

SENT VIA FEDERAL EXPRESS

Mr. Mike Kostanian
Bechtel Environmental, Inc.
45 Freemont Street
San Francisco, CA 94105-1895

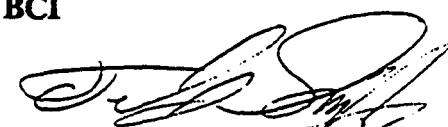
RE: FMC Corporation
Eastern Michaud Flats Project
Pocatello, Idaho
Geotechnical Field Investigation Report

Dear Mike:

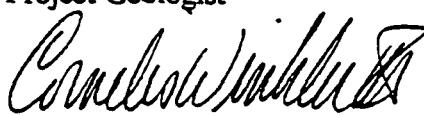
BCI is pleased to submit three copies of our report summarizing the geotechnical field investigation of Ponds 8E, 11S, 12S, and 13S at FMC Corporation's Pocatello, Idaho facility. We appreciate the assistance provided by Gary Oberholtzer and Merve Attwood during the field investigation portion of this challenging project. Please call us if you have any questions or need additional information.

Sincerely,

BCI



for
Matthew L. Cain
Project Geologist



Cornelis Winkler III
Project Manager

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2-1 Sampling and Testing Program Summary

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- 3-16 Shear Strength Vs. Depth, Pond 13S, BH-3

1.0 INTRODUCTION

In July 1997, BCI Engineers & Scientists, Inc. (BCI) personnel, under a subcontract with Bechtel Environmental Inc. (Bechtel) acting as agent for FMC, completed a geotechnical field investigation at the FMC Corporation's Facility in Pocatello, Idaho. The investigation included sampling the sludge and completing *in-situ* tests in Ponds 8E, 11S, 12S, and 13S. Sampling and testing were completed to obtain data for the design of the planned closure of the sludge ponds. All work was completed in accordance with FMC safety policies and the task-specific Health and Safety Plans developed by Bechtel.

Our field work was completed from a pontoon barge on the water surface of the ponds. FMC provided the barge and personnel to assist with the movement of the barge and our work on the ponds. Bechtel Environmental, Inc. provided an engineer and a site safety officer to assist in the investigation. The locations and tests completed at each location were selected by Bechtel's on-site engineer.

Samples of the sludge were collected at various depths using a piston tube sampler. Samples were transported by Bechtel's engineer to the FMC laboratory for analyses. *In-situ* tests included undrained shear strength using a shear vane. Sampling locations are indicated in Figure 1-1.

This report is organized in four sections. Section 2.0 presents procedures and data for piston tube sampling. Section 3.0 presents procedures for vane shear testing. Section 4.0 summarizes the health and safety aspects of the field work. Field reports and vane shear data are presented in the Appendices.

2.0 PISTON TUBE SAMPLING

Piston tube sampling techniques were used at five locations in Pond 8E, one location in pond 11S, and three locations each in ponds 12S and 13S. Our field work was completed from a pontoon barge on the water surface of the ponds. A surveyed grid system had been staked by FMC at the ponds to assist in visually aligning the barge to known locations on each pond. The barge was then tied off from three to four points to keep it at the desired location.

Test locations and tests completed at each pond were selected by Bechtel's on-site engineer. Table 2-1 summarizes the sampling and testing programs completed on the ponds. In Pond 11S, access was limited to a single test location. Only at the south end of the pond was the water depth sufficient to float the barge. It was not possible to raise the water level in this pond without overtopping the liner. In general, samples of the sludge were collected at three foot intervals and vane shear tests completed at 1.5 foot intervals.

The piston tube sampler was operated by manually pushing the sampler into the sludge to a specified depth and holding the piston stationary while advancing the sampling tube. The cylindrical piston tube sampler was used to sample material from just below the surface of the sludge to depths where refusal was encountered. The surface of the sludge was measured from the deck of the barge using an approximate 18-inch diameter dish. A locking mechanism on the cylindrical sampler prevents the sludge sample from displacing the piston as it is advanced to the sample depth. A diagram of the piston tube sampler is included as Figure 2-1. Daily field reports that summarize all sampling and testing activities are included in Appendix A.

At each location, sampling generally commenced near the surface of the sludge and continued at 3-foot intervals thereafter. Piston sampling in the ponds reached a maximum depth of about 16.3 feet below the water surface in pond 12S. Sampling terminated when the bottom of the ponds was encountered.

Upon recovery, samples were immediately extruded from the sampler into labeled glass jars by advancing the piston. The sample jars were then tapped on the barge deck and the samples typically slumped and filled the jar. Once the jar was filled, the lid was screwed on, the jar was rinsed and placed under water in a cooler. The pond samples were typically brown, very soft, silty

sludge with minor amounts of phosphorous. Every effort was made to completely fill the jar to obtain a zero head space sample. It was necessary to store the samples under water due to the ignitable nature of elemental phosphorous when exposed to air.

The recovered samples were transported to the FMC laboratory at the end of each day and stored under water pending start of the laboratory testing program.

3.0 VANE SHEAR TESTING

Vane shear testing was completed prior to sampling at each location. Water depths to the top of the sludge ranged from 1.8 feet at BH-1, Pond 8E to 11.6 feet at BH-2, Pond 13S. The test locations and tests completed at each location were selected by Bechtel's on-site engineer. Field test locations are shown on Figure 1-1. Table 2-1 summarizes the vane shear testing completed on Ponds 8E, 11S, 12S, and 13S.

3.1 Vane Shear Test Methods

Field vane shear strength testing was completed at five locations in Pond 8E, one location in Pond 11S, and three locations each in Ponds 12S and 13S (Figure 1-1) in accordance with ASTM D2753. Shear strength testing was completed with a modified torque wrench system and field vane/rod combinations capable of testing very soft to firm soils. Two different size vanes were used to accurately test the range of soil strengths encountered. Each vane consisted of four blades positioned at 90-degree angles.

The vane was pushed to the desired test depth, after which the wrench was slowly turned clockwise until the soil failed. The peak torque in inch-pounds was recorded along with the test depth and the vane size. Next, the vane was turned 360 degrees ten times, the torque wrench reset to zero, and the procedure repeated to determine the remolded torque. The vane was pushed to the next test depth and the procedure repeated until resistance to penetration precluded further advancement of the vane. The process was repeated at each test depth using only the rod to determine rod-only values.

Two different sized vanes were utilized for varying shear strengths. For weak or soft material, a large sized vane was used; a medium vane was used for firmer materials. Listed below are the dimensions of the vanes used to test the sludge in Pond 1.

<u>Vane Designation</u>	<u>Vane Height</u> (inches)	<u>Vane Diameter</u> (inches)	<u>K</u> (ft ³)
Medium	8.0	4.0	0.1344
Large	12.0	6.0	0.4536

A computer spreadsheet was used to reduce the data based on the applied torque and the size of the vane. The shear strength of the sludge was calculated using the following formula as found in ASTM D 2573-94 (ASTM, 1994):

$$s = T \times k$$

where: s = the shear strength of the sludge in pounds per square foot
 T = the applied torque in inch-pounds
 k = $1/K$ a constant dependent on the size of the vane in cubic feet

The constant K (ft³) was determined using the following formula as found in ASTM D 2573-94:

$$K = (\pi/1728) \times (D^2H/2) \times [1 + (D/3H)]$$

where: D = the diameter of the vane in inches
 H = the height of the vane in inches

3.2 Vane Shear Test Results

Shear strength profiles in the ponds extend to depths that range from the surface of the sludge to the pond bottoms. For each shear strength profile, initial and remolded shear strengths were evaluated with depth on 1.0 to 1.5 foot intervals. Vane shear data is included in Appendix B. The accuracy of the test results is primarily dependent on the accuracy of the torque wrench. The torque wrench used has an accuracy of 2.5 inch-pounds which corresponds to a shear strength of 0.5 and 1.5 pounds per square foot (psf) for the large and medium vane respectively. The K-D Model 2651 dial-type torque wrench was factory calibrated prior to mobilization to the FMC facility.

Figures 3-1 through 3-12 include vane shear data for the ponds. Peak strength values range from less than 5 to about 85 psf, values which are typical of very soft to soft soils. The remolded strength data range from about 0 to 20 psf. In general, both initial and remolded strength values increased with depth. Spikes in the data are interpreted to be the result of variations in the physical nature of the sludge.

Sensitivity of a material is the ratio of the undisturbed strength to the remolded strength. The vane shear data indicate the sensitivity values for the sludge generally range between 4 and 16, with a low of 2 and a high of 24. Based on these values, the sludge is moderately to highly sensitive (Holtz & Kovacs, 1981). In Pond 8E, BH-1 at 6 feet, sensitivity was calculated at 20, and in Pond 12S, BH-1 at 14 feet, sensitivity was calculated at 24. Both of these sensitivity values reflect materials in a quick condition.

4.0 HEALTH AND SAFETY

The sludge deposited in the ponds contains minor amounts of disseminated elemental phosphorus (P₄). Elemental phosphorus ignites spontaneously in air and burns extremely rapidly and hot, which posed obvious risks to our field crew. In addition, elemental phosphorus can combine with hydrogen to form phosphine gas (PH₃). Phosphine gas poses serious health hazards if inhaled. To minimize the risks to our field crew, BCI followed task-specific health and safety plans developed by Bechtel and FMC. These plans and the field procedures used on the barge resulted in the completion of the field geotechnical investigation without even a minor accident.

The burn risks posed by elemental phosphorous were minimized by the use of protective clothing and precautionary procedures. Protective clothing included rubber boots, rubber gloves, latex gloves, leather gauntlet gloves, hard hats, safety glasses and shields, and fire retardant "silver suits". Additional safety equipment was installed on the barge. A gravity feed water hose was used to rinse sludge from all equipment as it was retrieved from the pond and any sludge that got on gloves, etc. A jump tank, life jackets and radio were on the barge at all times.

In order to determine potential exposure to phosphine gas, the air was tested using phosphine gas meters and readings verified by Draeger tubes. This was completed on the barge and at other locations where work was executed.

Initial readings from Pond 8E indicated phosphine levels in excess of the 1 ppm Short Term Exposure Limit (STEL). Testing on Pond 8E was limited to BH-1 and BH-2 on July 9 and 10, due to continued detection of phosphine levels near the STEL. On Wednesday, July 10, as directed by Bechtel, BCI arranged for shipment of a supplied air cascade system to the site in order to complete the testing of the ponds without exceeding both the 8 hour TWA (Time Weighted Average) and STEL. The remainder of the investigation required use of the supplied air system by all four persons on board the sampling barge. Each person was equipped with a positive-pressure, pressure-demand full-face mask, a 50 foot air hose, and 5-minute emergency escape bottle. A local vendor was contacted to supply air for the system.

ACKNOWLEDGEMENTS

The following BCI personnel worked on this project:

Senior Project Manager	Wayne A. Ericson, P.E.
Project Manager	Cornelis Winkler III, P.G.
Sr. Project Geologist	Ted J. Smith, P.G.
Project Geologist	Matthew L. Cain
Clerical	Muriel W. Berry
Drafting/CADD	Mark A. Jones

The following personnel provided valuable support to the completion of the BCI field investigation:

Gary Oberholtzer, Bechtel Environmental
Mervin Attwood, Bechtel Environmental
Ron Hosking, FMC Corporation
Steve Payne, FMC Corporation
Alan Hall, FMC Corporation
Rob Hartman, FMC Corporation

Key Words

FMC Corporation
Bechtel Environmental
Phosphorus

Latitude 42°50' North
Longitude 112°25' West

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- Carrier, W.D. III, L.G. Bromwell and F. Somogyi, "Design Capacity of Slurried Mineral Waste Ponds," *Journal of Geotechnical Engineering*, ASCE, Vol. 109, No. 5, May 1983, pp. 699-716.
- Holtz, R.W. and W.D. Kovacs, *An Introduction to Geotechnical Engineering*, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1981.
- Lambe, T.W. and R.V. Whitman, *Soil Mechanics*, John Wiley & Sons, Inc., New York, 1969.
- Puolos, S.J., et al., *Liquefaction Resistance of Thickened Tailings*, *Journal of Geotechnical Engineering*, Vol. 111, No. 12, December, 1985.

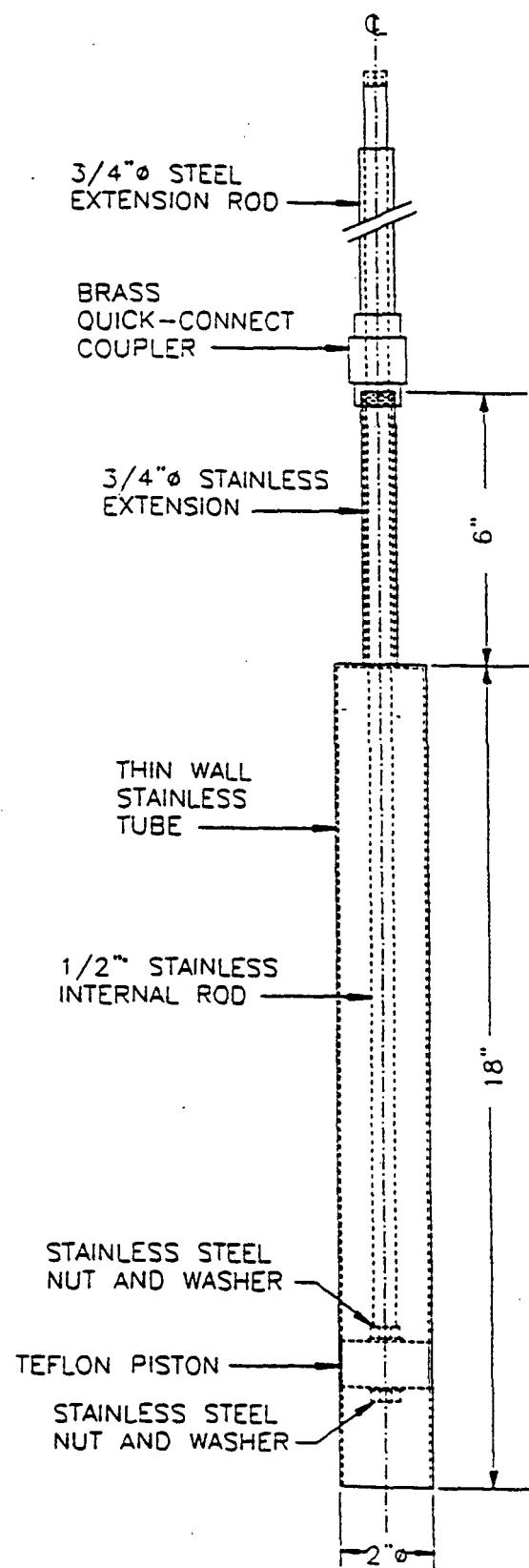
TABLES

TABLE 2.1
Testing and Sampling Summary

POND#/ POSITION	POND ELEV. (feet NGVD)	LOCATION	DEPTH TO SEDIMENT (feet)*	DEPTH TO POND BOTTOM (feet)*	SAMPLE DEPTHS (feet)*	VANE SHEAR DEPTHS (feet)*
8E/BH-1	4480.3	J+75'; 2+30'	4.0	14.0	4.0, 7.0, 10.0, 13.0	4.5, 6.0, 7.5, 9.0, 10.5, 12.0
8E/BH-2	4480.3	I+45'; 3+40'	4.2	14.0	4.2, 7.2, 10.2, 13.2	4.7, 6.2, 7.7, 9.2, 10.7, 12.2
8E/BH-3	4480.3	H+20'; 4+50'	4.5	14.5	4.5, 7.5, 10.5, 13.5	5.0, 6.5, 8.0, 9.5, 11.0, 12.5, 13.5
8E/BH-4	4480.3	H+85'; 2+45'	4.2	15.0	4.2, 7.2, 10.2, 13.2	4.7, 6.2, 7.7, 9.2, 10.7, 12.2, 13.7
8E/BH-5	4480.3	H+20'; 1+60'	4.5	14.0	4.5, 7.5, 10.5, 13.5	5.0, 6.5, 8.0, 9.5, 11.0, 12.5
11S/BH-1	4469.4	F; 2+30'	4.5	16.0	4.5, 7.5, 10.5, 13.5	5.0, 6.5, 8.0, 9.5, 11.0, 12.5, 14.0, 15.5
12S/BH-1	4469.2	D; 2+35'	7.5	17.5	7.5, 10.5, 13.5, 16.5	8.0, 9.5, 11.0, 12.5, 14.0, 15.5, 17.0
12S/BH-2	4469.2	D; 4+10'	7.5	19.5	7.5, 10.5, 13.5, 16.5, 18.5	8.0, 9.5, 11.0, 12.5, 14.0, 15.5, 17.0, 18.5
12S/BH-3	4469.2	D+5'; 5+90'	7.8	19.5	7.8, 10.8, 13.8, 16.8, 18.5	8.3, 9.8, 11.3, 12.8, 14.3, 15.8, 17.3, 18.8
13S/BH-1	4467.9	A+90'; 2+50'	13.5	17.0	14.0, 16.0	14.0, 15.0, 16.0
13S/BH-2	4467.9	A+90'; 4+15'	13.8	18.8	13.8, 15.8, 17.8	14.3, 15.3, 16.3, 17.3, 18.3
13S/BH-3	4467.9	A+95'; 5+80'	12.0	18.0	12.5, 14.5, 17.0	12.5, 13.5, 14.5, 15.5, 16.5, 17.5

* All depths relative to barge deck. Barge deck measured at 2.2 ft. above pond surface.

FIGURES



2000 E. EDGEWOOD DRIVE, LAKELAND, FL 33803
PHONE: (941) 667-2345

BECHTEL / FMC CORPORATION

FIGURE 2 - 1
BCI
STAINLESS STEEL
PISTON TUBE SAMPLER

DATE: 7/31/97

DRAWN BY: M.A.J.

SCALE: NOT TO SCALE

PROJECT NO.: 979704

Figure 3-1
Shear Strength vs. Depth, Pond 8E

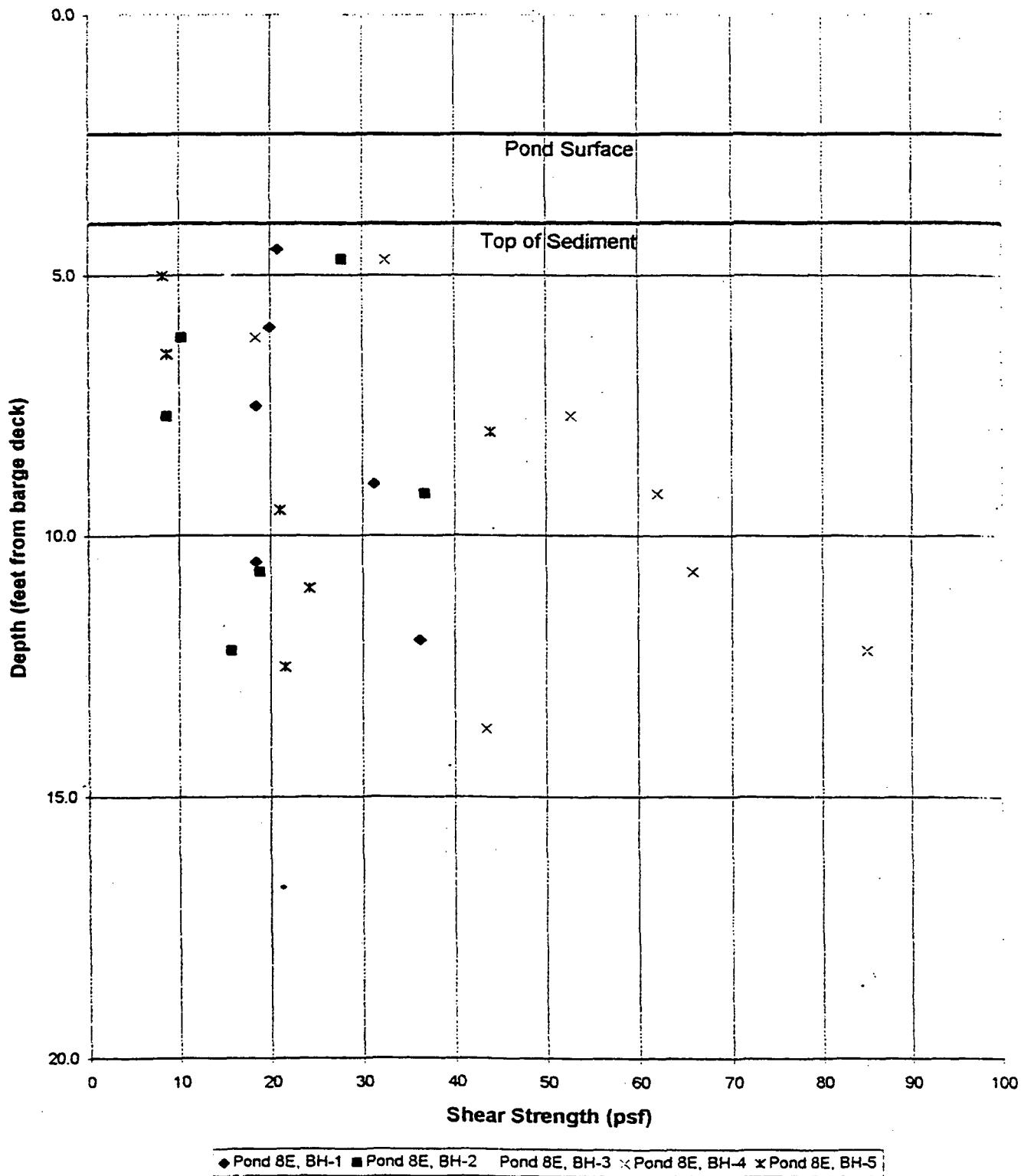


Figure 3-2
Shear Strength vs. Depth, Pond 11S

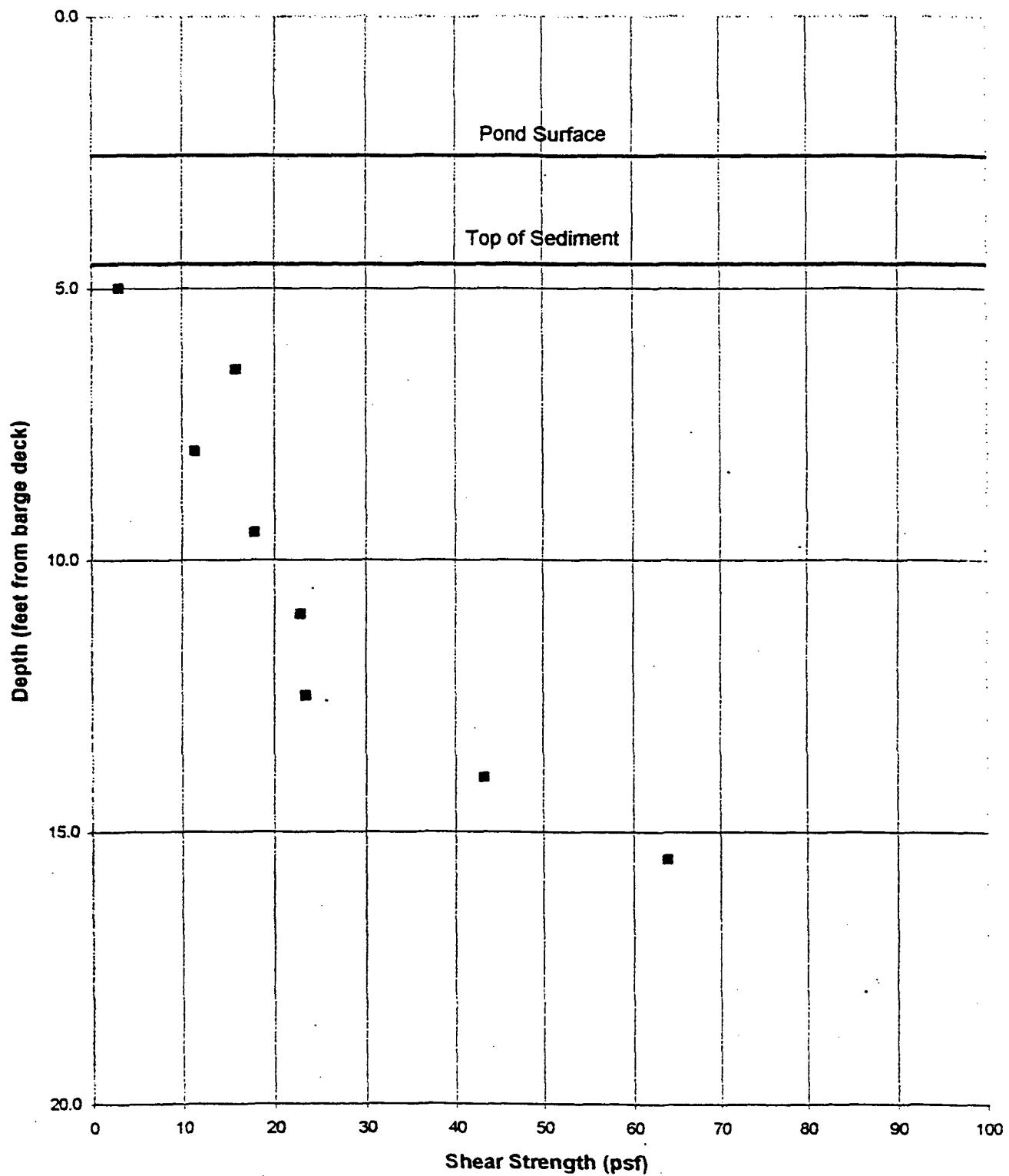


Figure 3-3
Shear Strength vs. Depth, Pond 12S

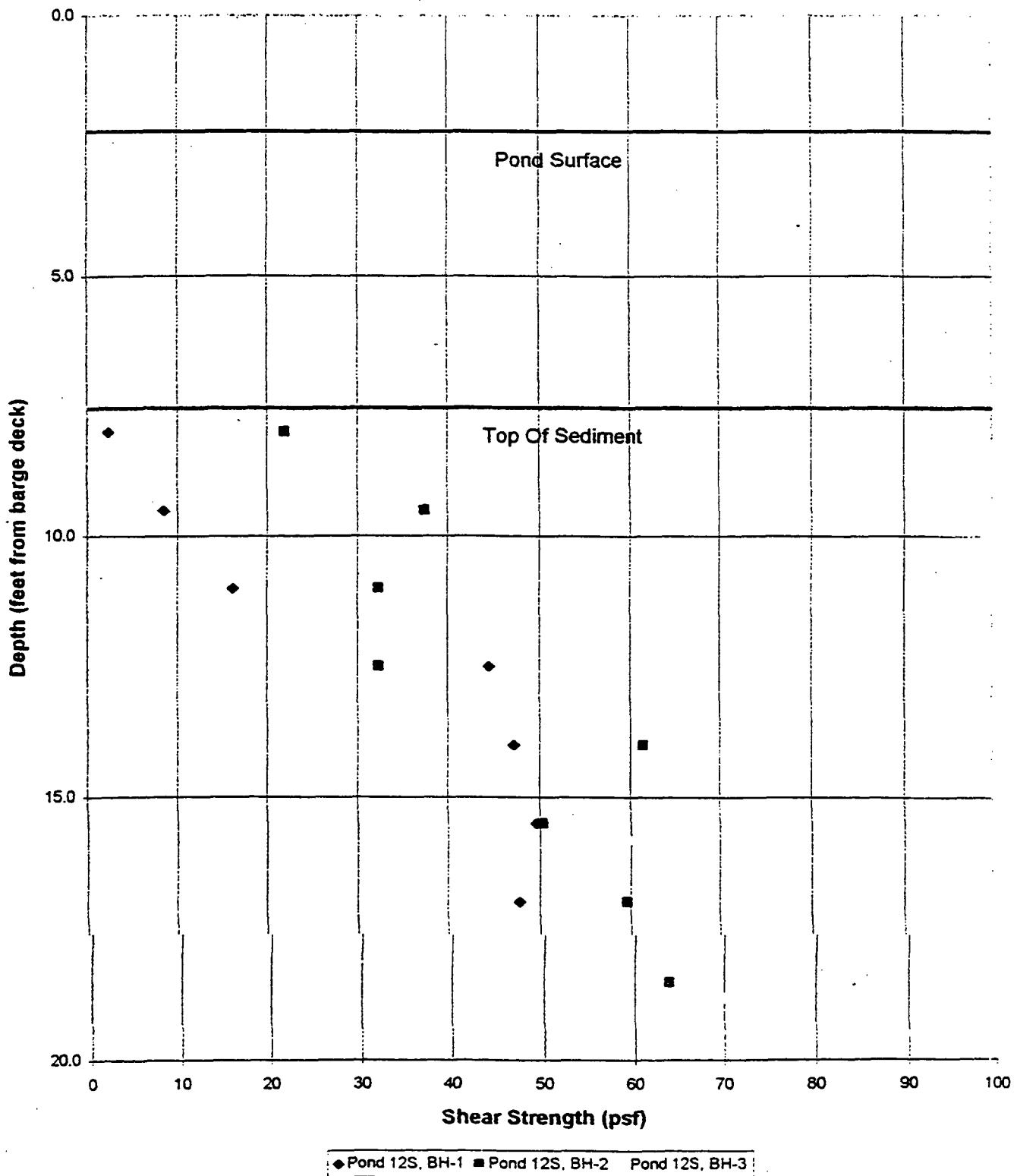


Figure 3-4
Shear Strength vs. Depth, Pond 13S

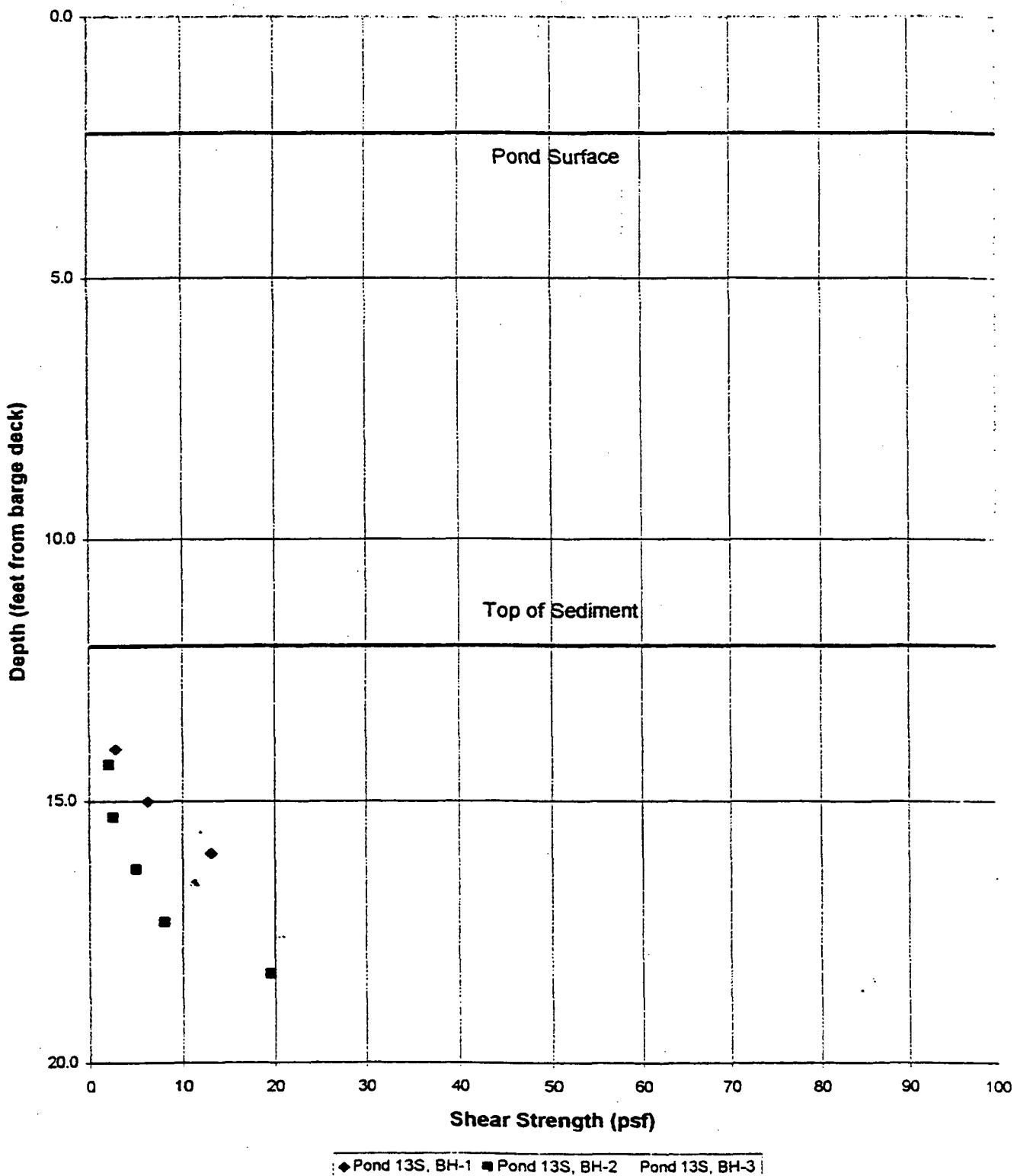


Figure 3-5

Shear Strength vs. Depth, Pond 8E, BH-1

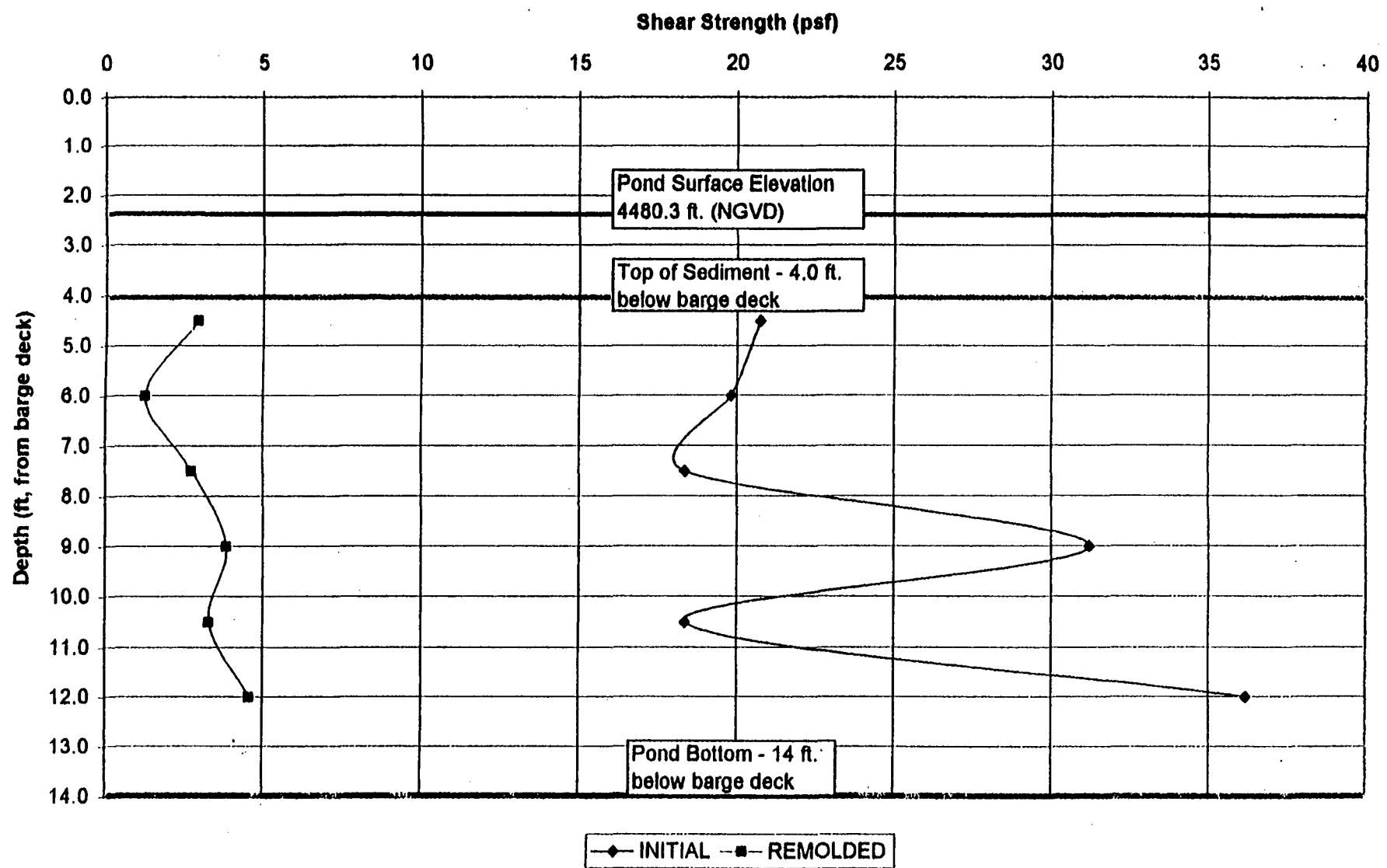


Figure 3-6
Shear Strength vs. Depth, Pond 8E, BH-2

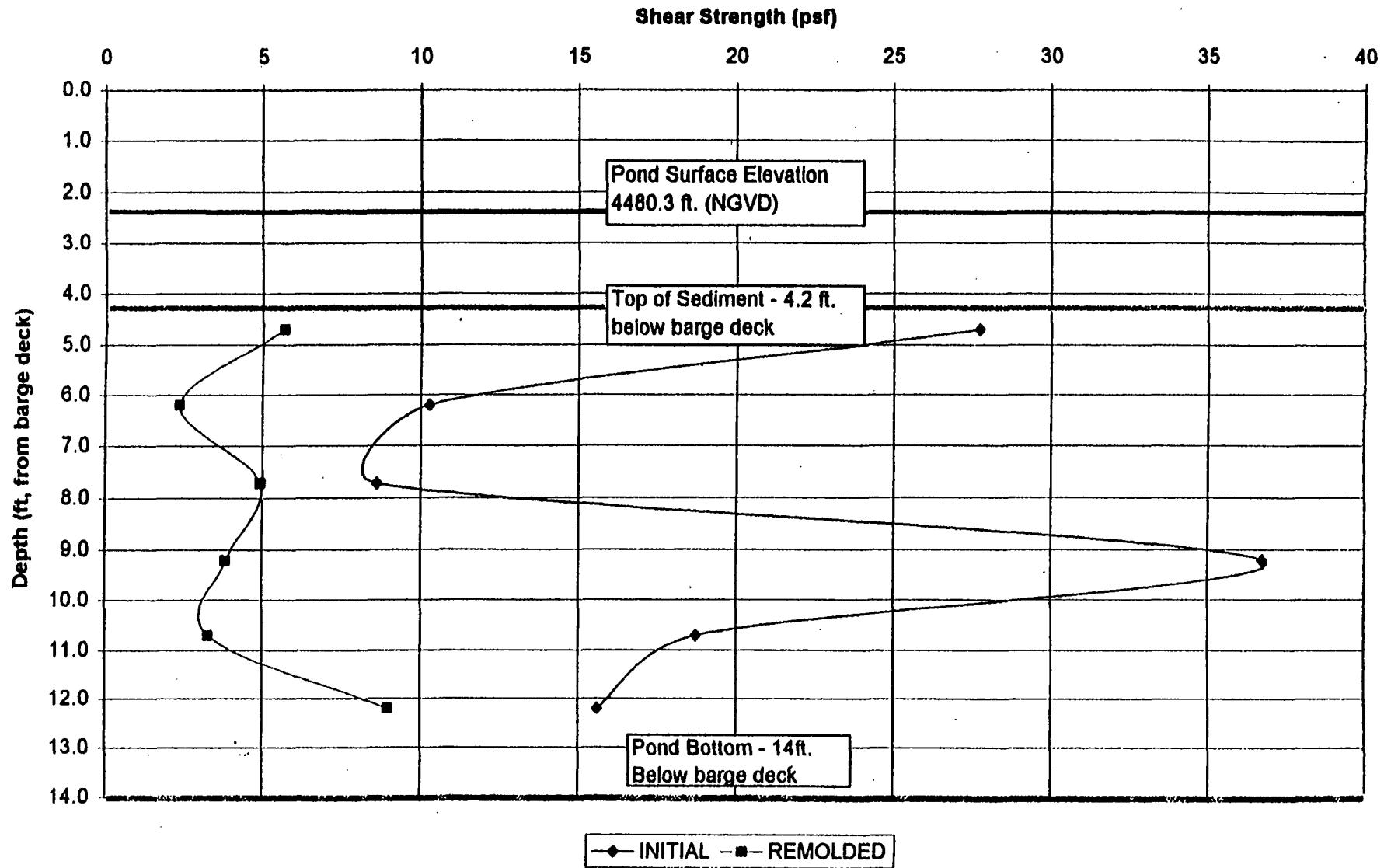


Figure 3-7
Shear Strength vs. Depth, Pond 8E, BH-3

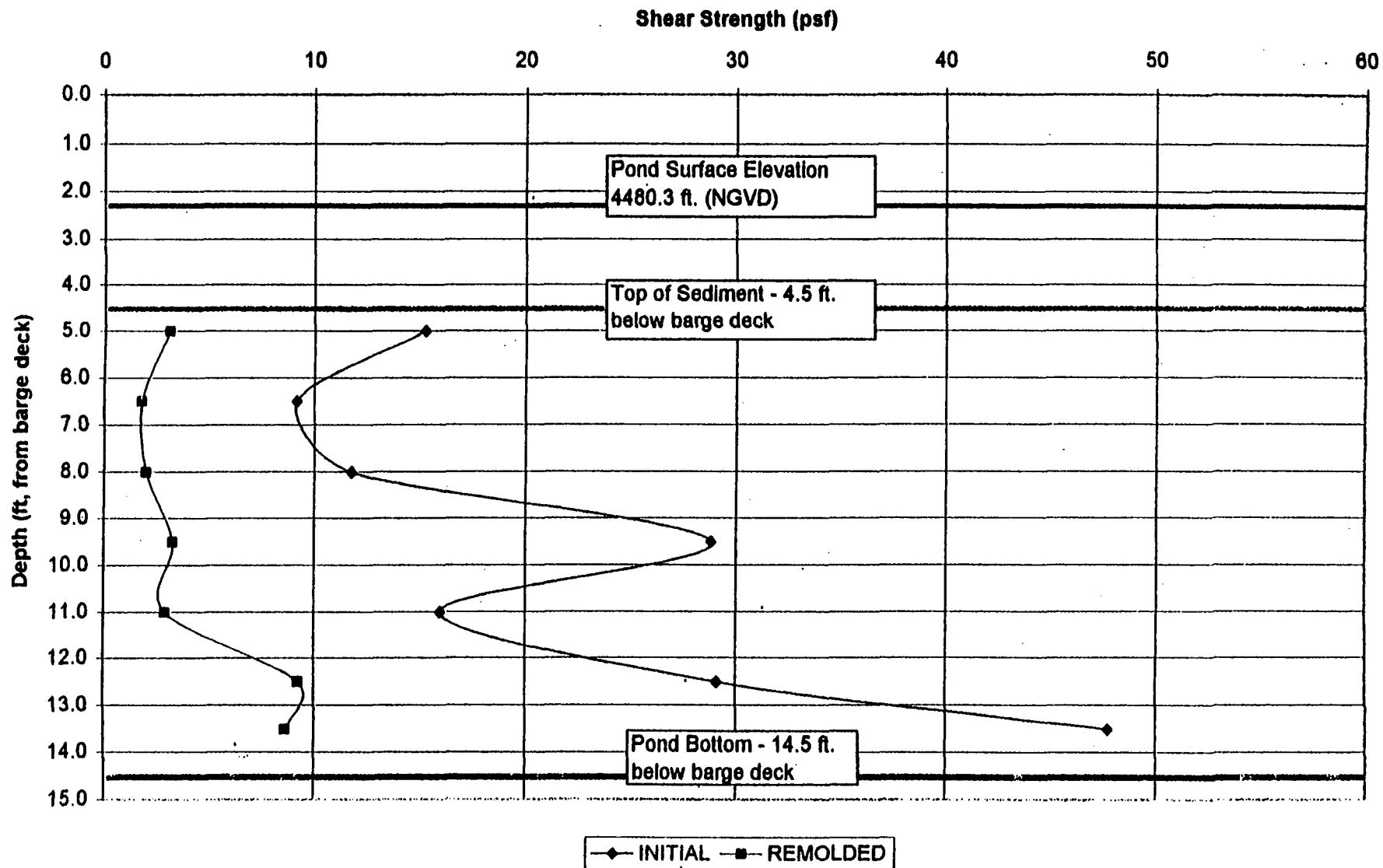
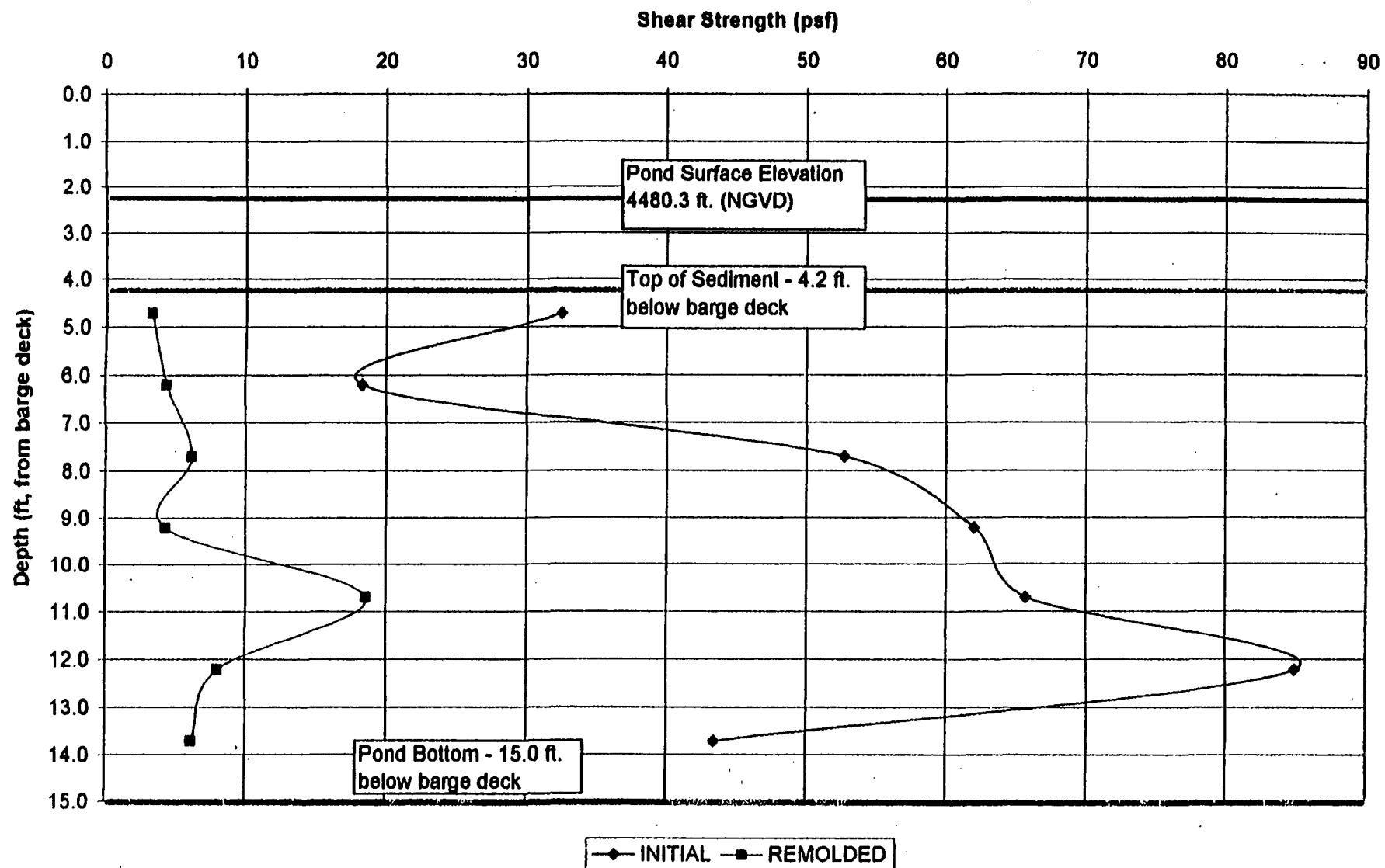
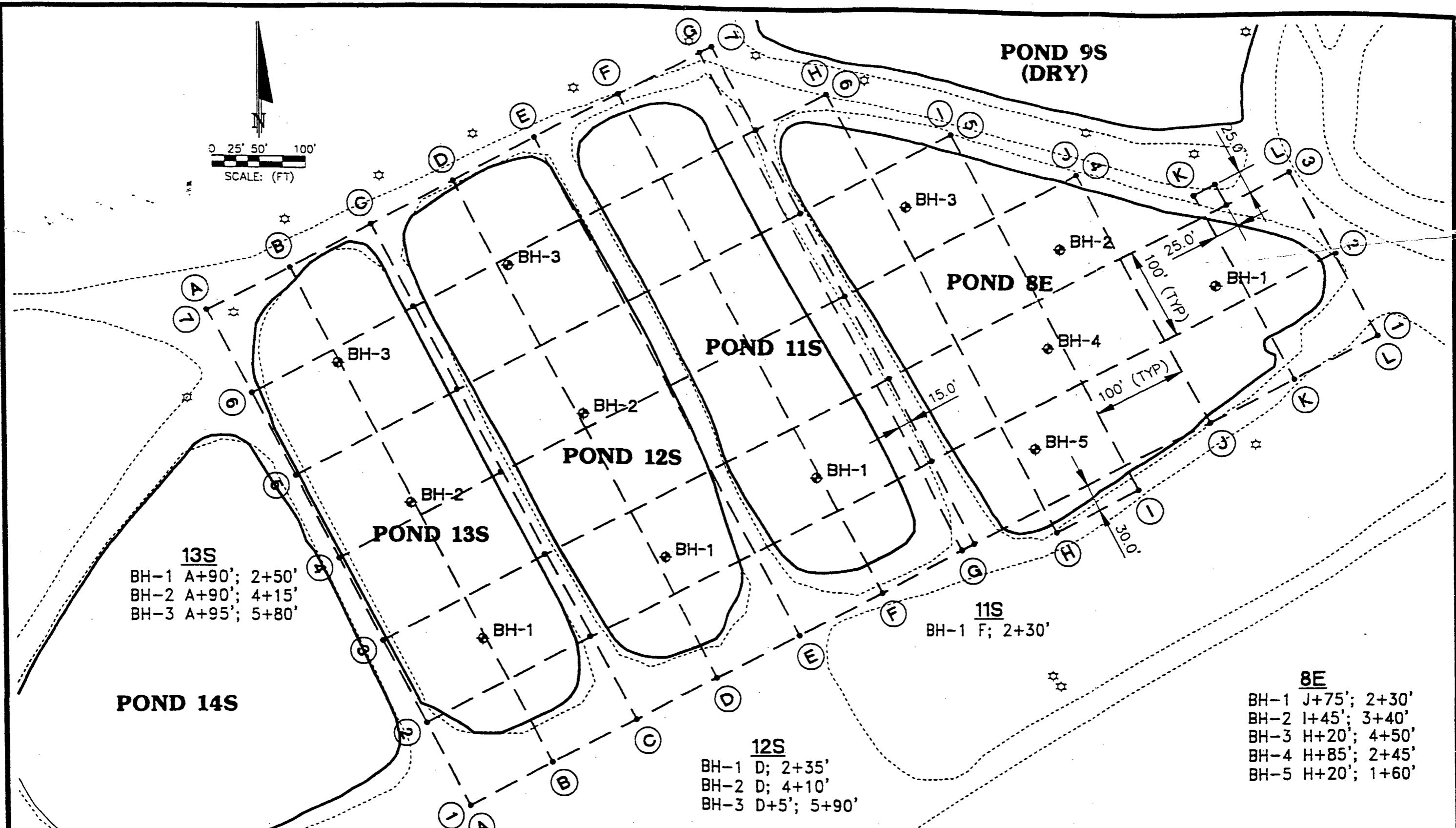


Figure 3-8

Shear Strength vs. Depth, Pond 8E, BH-4





BETCHEL ENVIRONMENTAL
FMC CORPORATION
EASTERN MICHAUD FLAT PROJECT
POND LOCATION, SAMPLING AND
TESTING LOCATIONS

Figure 3-9

Shear Strength vs. Depth, Pond 8E, BH-5

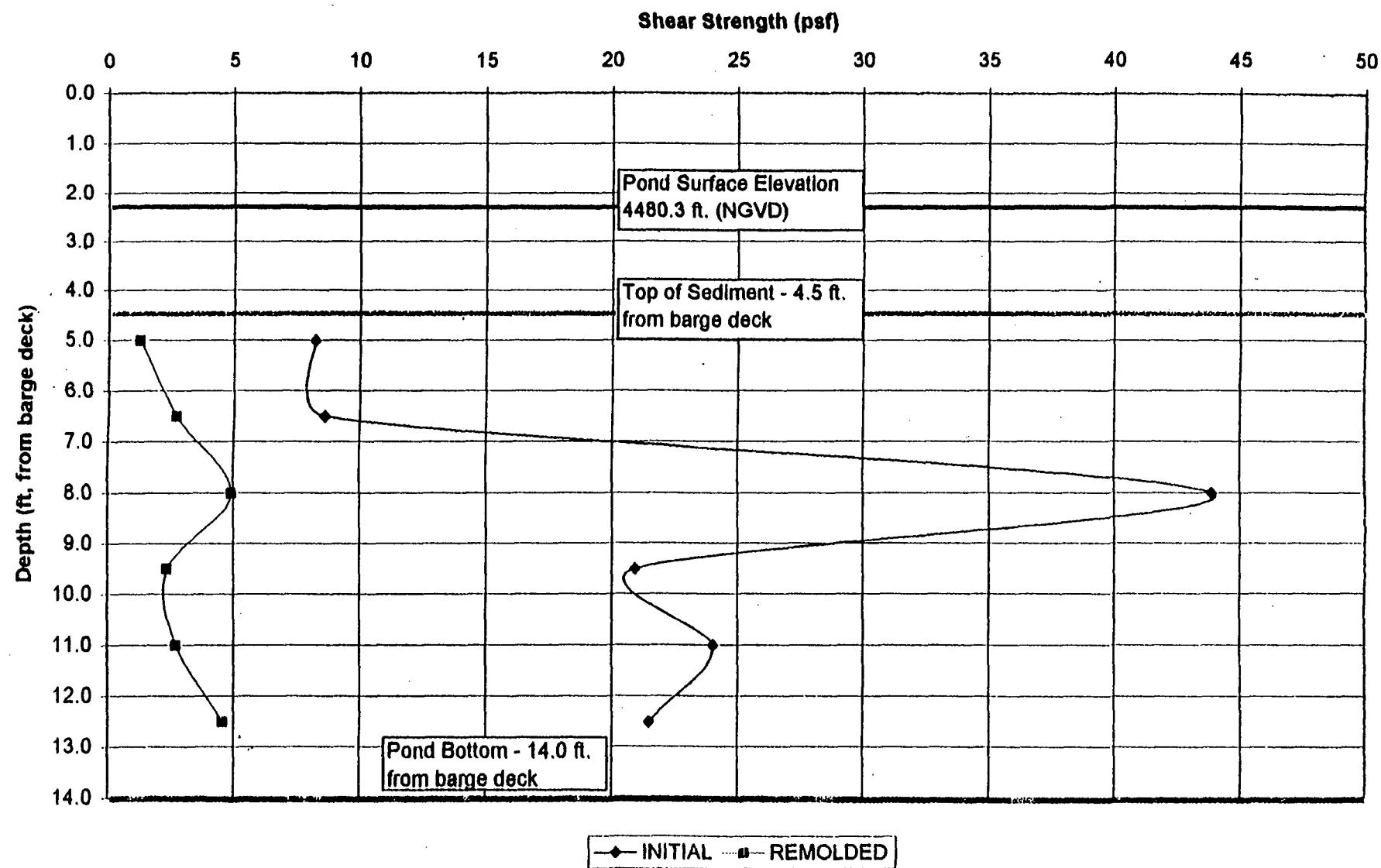


Figure 3-10
Shear Strength vs. Depth, Pond 11S, BH-1

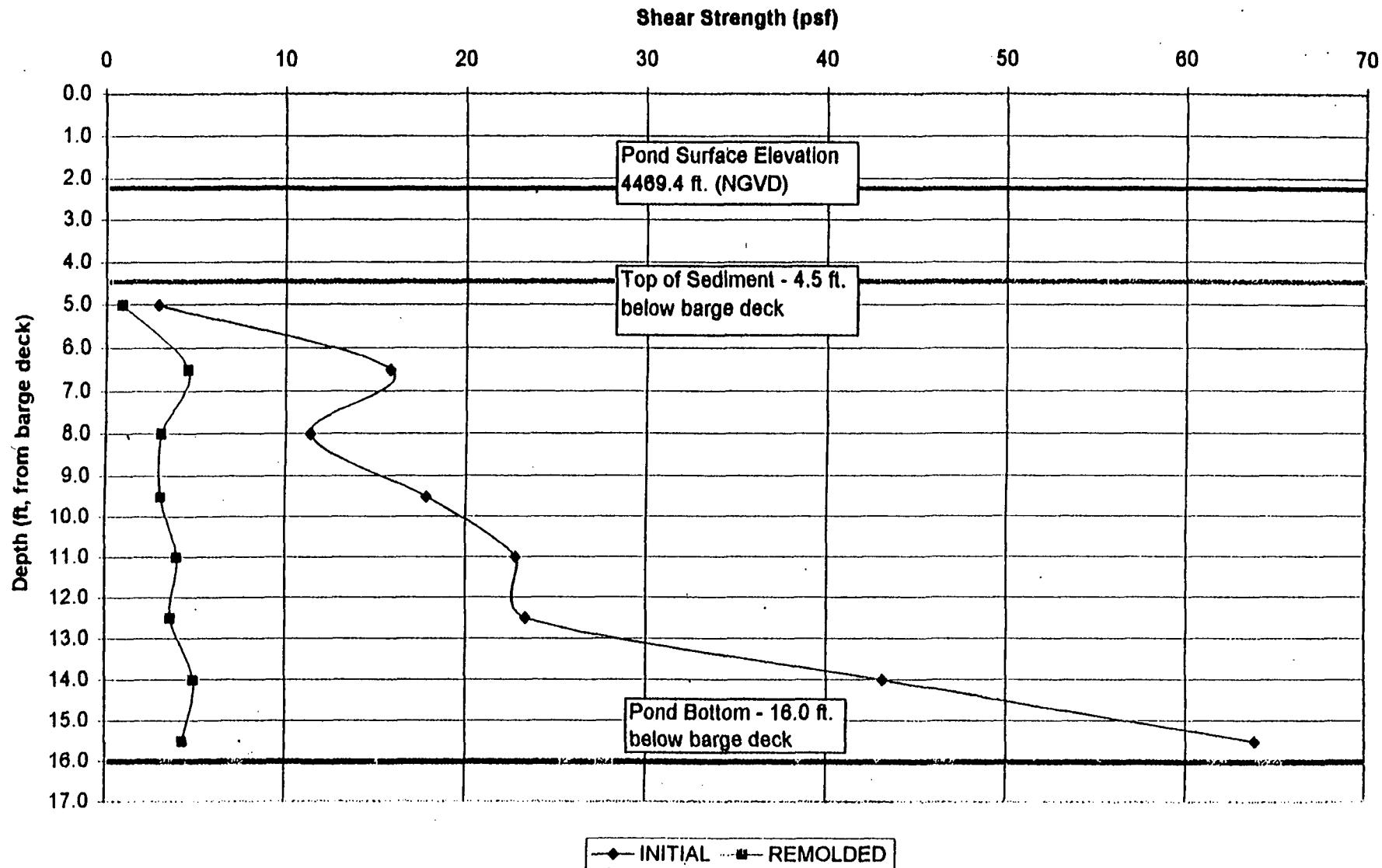


Figure 3-11

Shear Strength vs. Depth, Pond 12S, BH-1

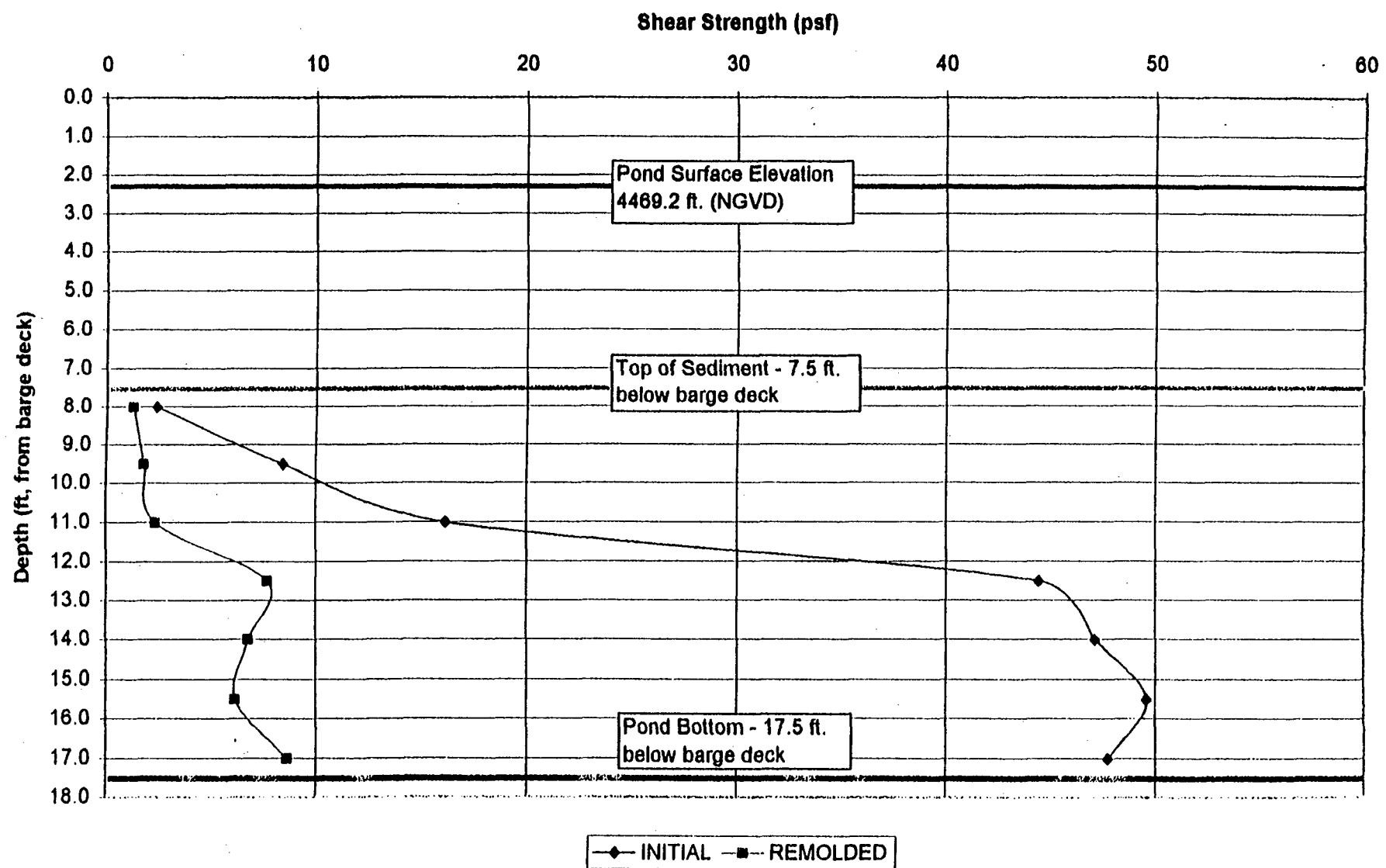


Figure 3-12
Shear Strength vs. Depth, Pond 12S, BH-2

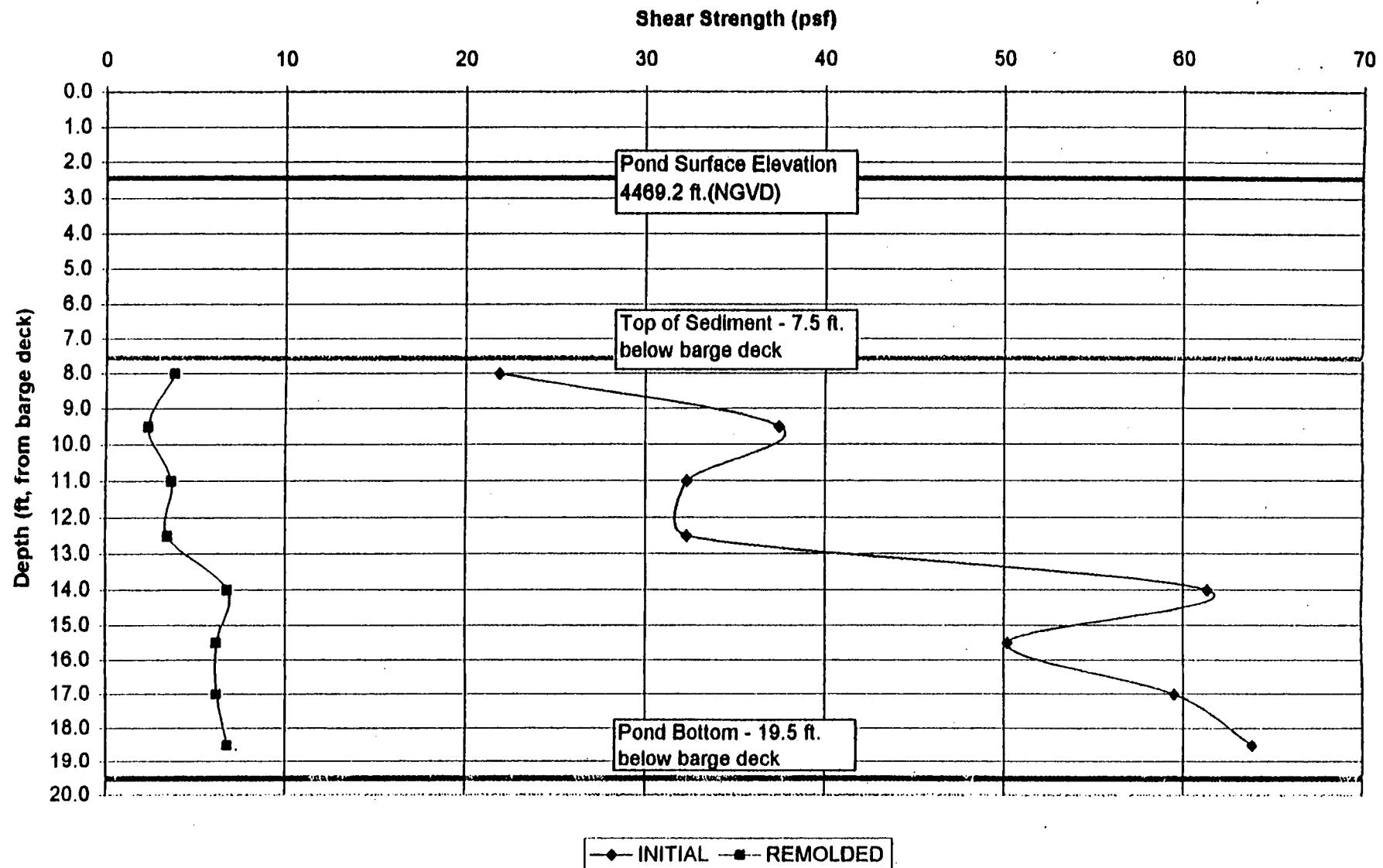


Figure 3-13
Shear Strength vs. Depth, Pond 12S, BH-3

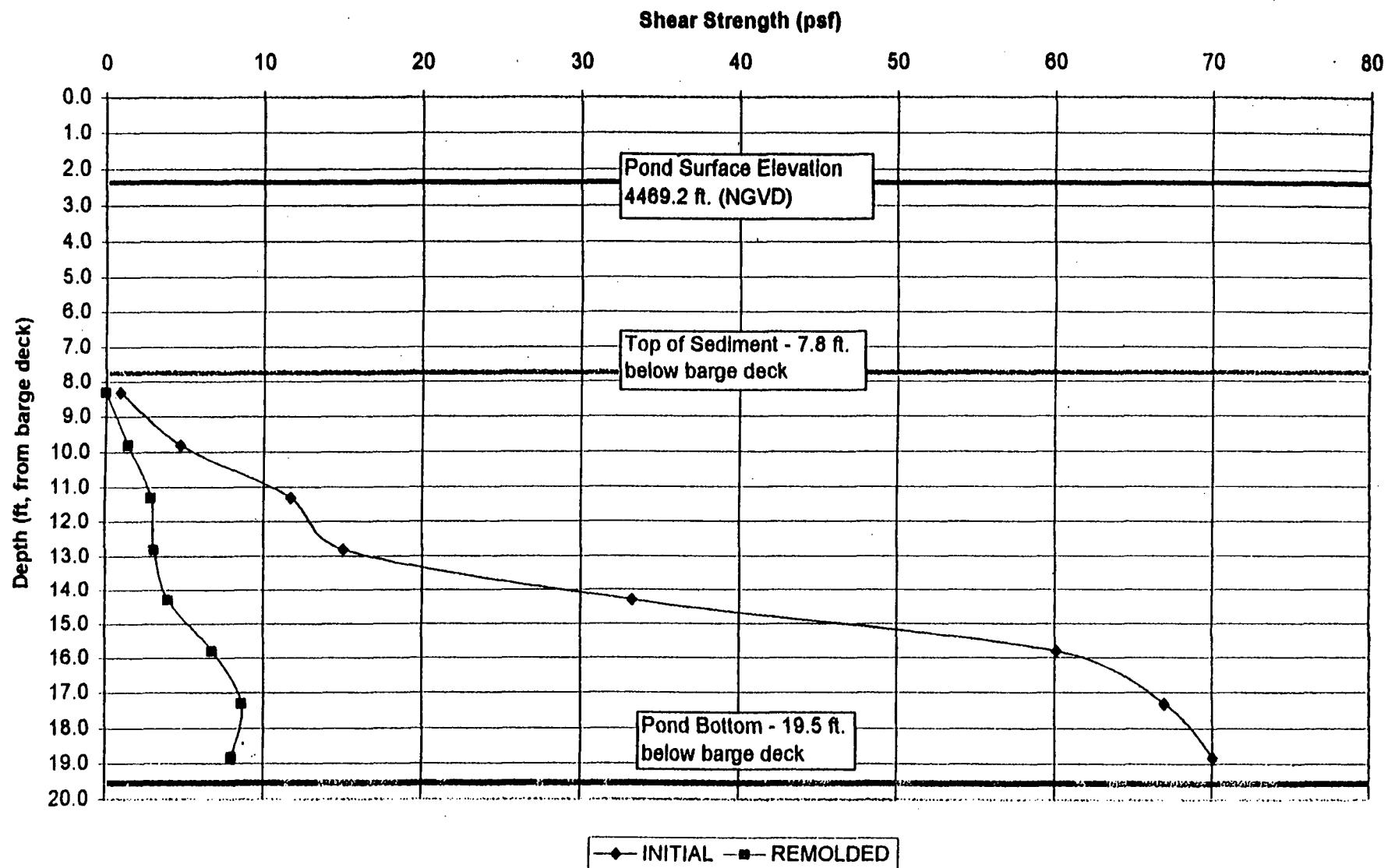


Figure 3-14.

Shear Strength vs. Depth, Pond 13S, BH-1

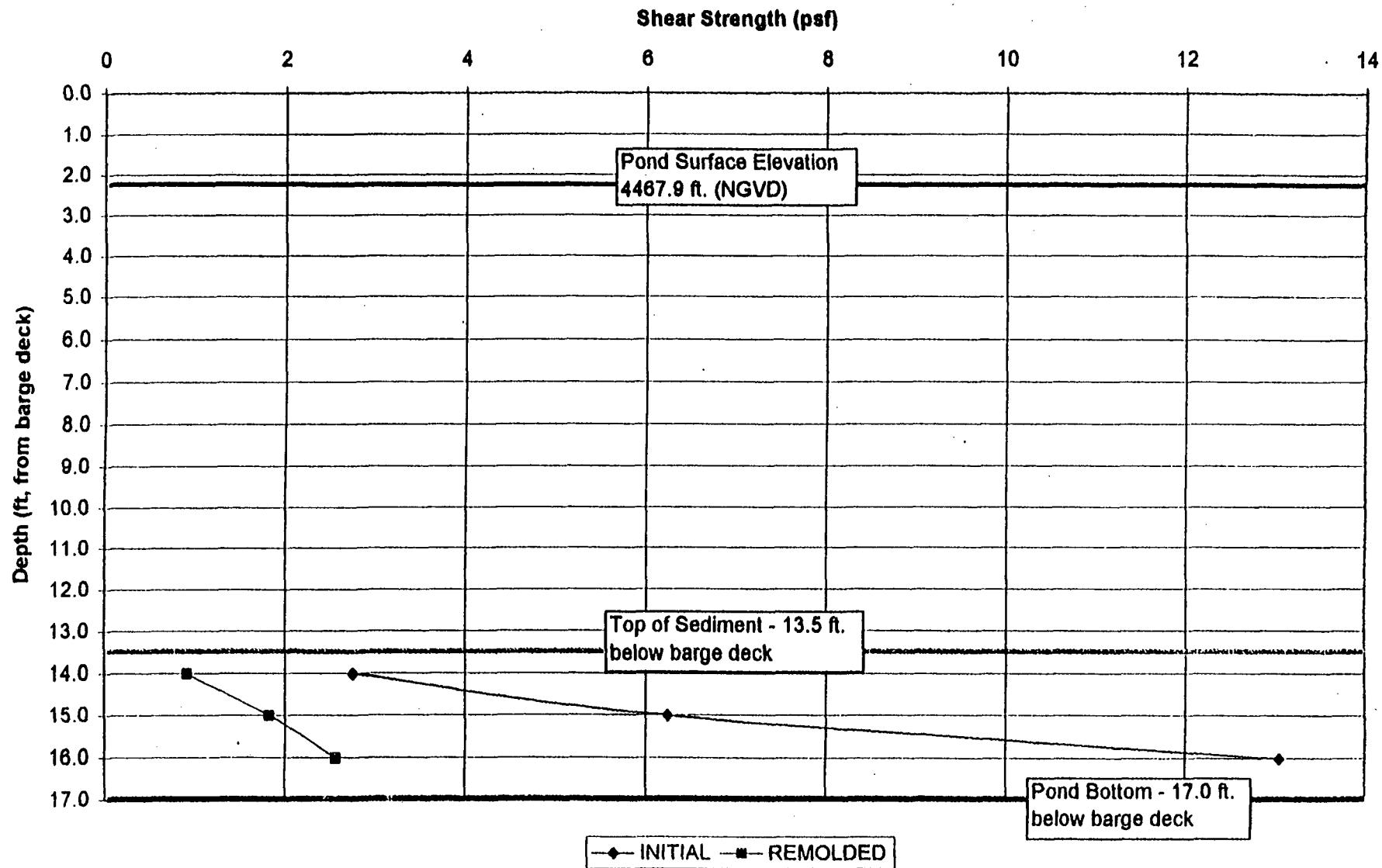


Figure 3-15

Shear Strength vs. Depth, Pond 13S, BH-2

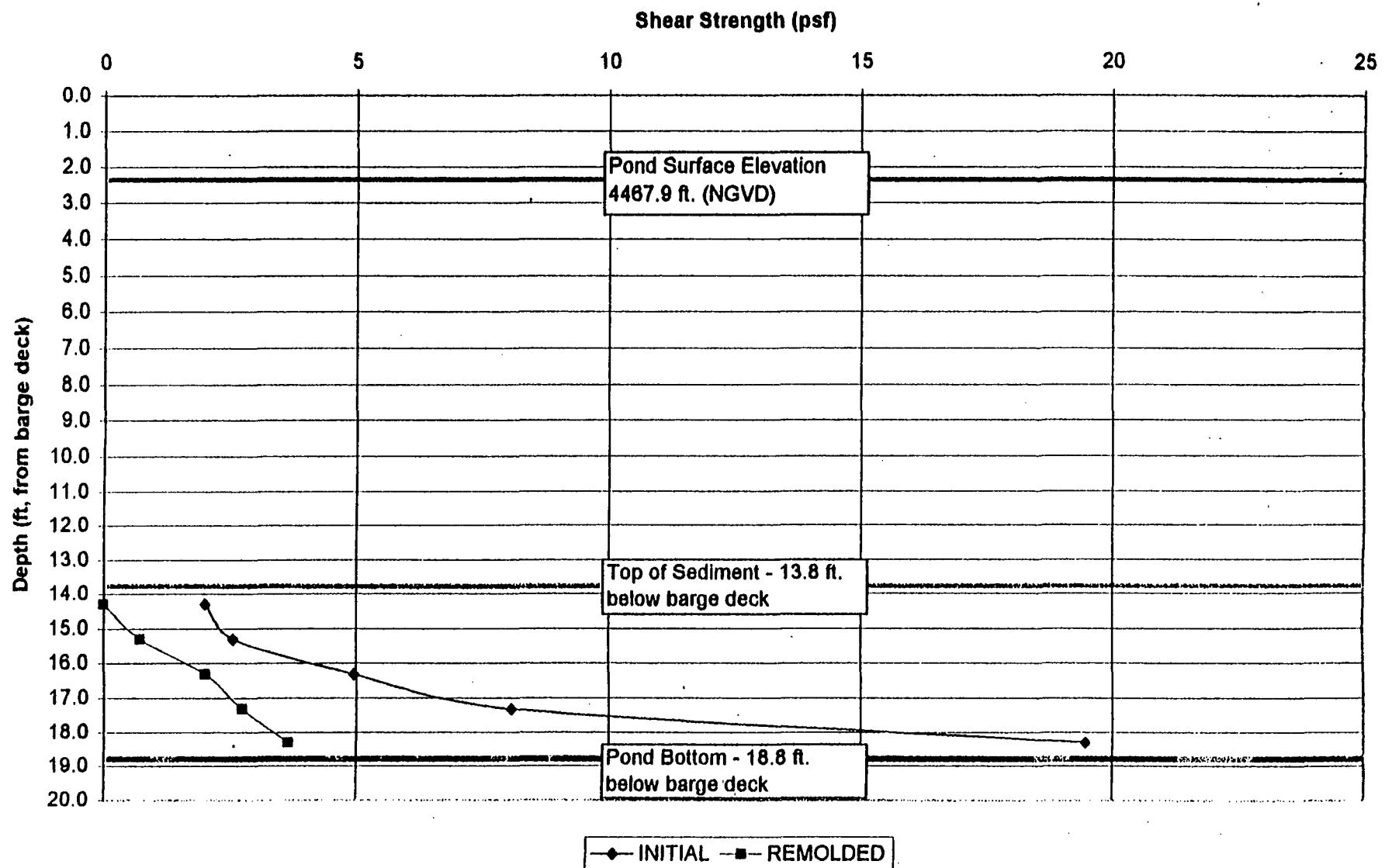
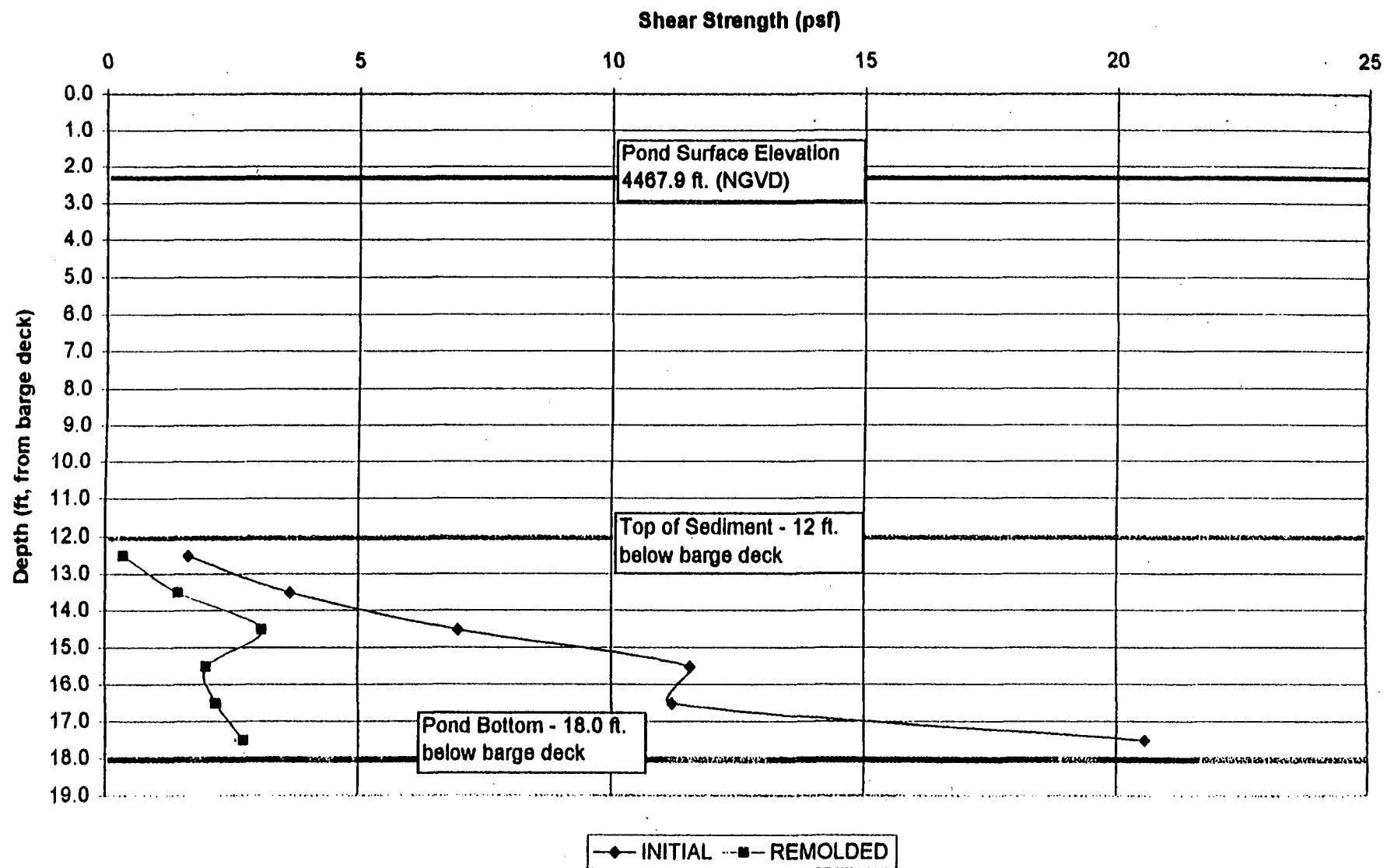


Figure 3-16
Shear Strength vs. Depth, Pond 13S, BH-3



**APPENDIX A
FIELD REPORTS**

DAILY FIELD REPORT

WEATHER WIND DIRECTION SW WIND SPEED 20
LOUDY SUNNY OVERCAST RAINY STORMY

ROUTE TO: Bechtel	COPY TO: BCI Floc
DATE 7/7/97	PAGE 1 OF 1
PROJECT NO. 979704.200	CLIENT Bechtel
LOCATION FMC Dardanelle	
BCI STAFF Ted Smith Matt Cain	

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
FRIDAY SATURDAY SUNDAY

TRACTOR CONTRACTOR'S SUPERVISOR

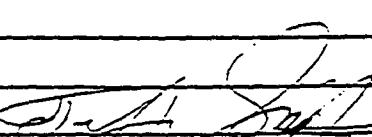
EQUIPMENT	HOURS WORKED	WORK PERFORMED
	2½	FMC Health & Safety Orientation
	1½	Bechtel/BCI Health & Safety Orientation
	5	Pond inspection, equipment inventory + setup, barge inspection, planning for testing + sampling
Total =	9 hrs	

OTHER ACTIVITIES/COMMENTS

- 10:00 - 10:30: FMC Health + Safety Training - 3 video's, local
- 11:30 - 12:00: Bechtel / BCI safety orientation - discussion of safety concerns + hazards + sampling + testing procedures
- 12:00 - 13:00: Pond inspection, barge setup w/ Steve Payne (FMC)
- 13:00 - 14:00: Lunch
- 14:00 - 18:00: Equipment inventory, setup and inspection. Inspection of pond + barge, planning of pulley/rope system, planning for Tues. Sampling schedule

Approved 7/7/97

MS Almendrala
Bechtel Field Rep.


MS Almendrala
BCI Sr. Project Geologist

ROUTE TO: G. Oberholzer		COPY TO: BCI Files
DATE	7/8/97	PAGE 1 OF 1
PROJECT NO.	979704	CLIENT Bertel
LOCATION	FMC	Pocatello Idaho
BCI STAFF	Ted Smith Matt Cain	

DAILY FIELD REPORT

WEATHER WIND DIRECTION N WIND SPEED 15
 CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
 FRIDAY SATURDAY SUNDAY

TRACTOR

CONTRACTOR'S SUPERVISOR

EQUIPMENT

HOURS WORKED

WORK PERFORMED

- | | |
|-------|-----------------------------|
| 1 | FMC bargeing, silver suits |
| 3 | barge setup, equip. loading |
| 1/2 | Mob/Remob to/from barge |
| 1 1/4 | Planning |
| 2 1/4 | Standby |

OTHER ACTIVITIES/COMMENTS total = 8 hrs

00- 01:00: FMC bargeing, picked up silver suits from FMC

00- 12:00: Set-up of barge lines water supply, equipment loading

13:00: Lunch, waiting on Bertel safety equipment

00- 13:30: Mobilized to barge for testing. Pontoon dragging due to high sediment & low water-level in pond. Phosphine monitoring indicated levels in excess of STEL (1 ppm). Returned to shore to determine options

00- 14:45: Discussed options FMC will attempt to raise water level in pond SE. Deposited site, expect to resume work, Wednesday AM.

00- 17:00: Stand-by. Arranged for possible rental units of air-line breathing system if phosphine continues to be a problem.

Approved 7/8/97

G. Oberholzer

Bertel Field Rep.

D. J. Smith
BCI, Sr. Project Geologist
7/8/97

TRANSMITTED WITH THIS REPORT

* None shear torque to strength calculation sheets

ROUTE TO: G. Oberholzer		Bechtel	
DATE 7/9/97		COPY TO: BCI Files	
PROJECT NO. 979704		PAGE 1 OF 1	
LOCATION FMC, Dorallo, ID			
BCI STAFF T. Smith M. Cain			

DAILY FIELD REPORT

WEATHER WIND DIRECTION WSW WIND SPEED 30
 CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
 FRIDAY SATURDAY SUNDAY

TRACTOR

CONTRACTOR'S SUPERVISOR

EQUIPMENT

HOURS WORKED

WORK PERFORMED

3 Sampling BH1, wave shear testing BH1+2

5 Safety planning, equip. arrangement + setup

Total - 8

OTHER ACTIVITIES/COMMENTS

- 1. 7:30: Arrive at site, tool-box safety meeting - discussed phosphine concerns. Geared-up w/ PPE.
- 2. 8:00: Mobilized to barge and took location BH1 on pond SE. Collected sludge samples. Phosphine monitoring indicated peaks in excess of 1 ppm during sampling activities. Demobilized from pond.
- 3. 11:00: Set up + phone calls for rental of supplied air system. Unit will be delivered from HAZCO-Denver on Thursday AM. Estimated ~2,000.00 additional equipment (PPE) costs.
- 4. 13:00: To town for supplies and to arrange for breathing air cylinders.
- 5. 14:00: Lunch

6. 15:30: Geared-up, moved to barge completed wave shear testing at BH1, moved to BH2 and completed wave shear testing. Demobilized from barge due to reaching TWA limit for phosphine. Storm blowing through.

7. 16:00: Stored equipment, discussed Thurs. plans, departed site.

PROBLEMS WITH THIS REPORT

Approved 7/9/97

John Oberholzer

Bechtel Field Rep.

D.J. Oberholzer
BCI, Sr. Project Geologist

7/9/97

ROUTE TO: G. Oberholzer Bechtel	COPY TO: BCI File
DATE 7/10/97	PAGE 1 OF 1
PROJECT NO. 979704	CLIENT Bechtel
LOCATION FMC Paracelso, TD	
BCI STAFF T. Smith M. Cain	

DAILY FIELD REPORT

WEATHER WIND DIRECTION WSW WIND SPEED 30
 CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
 FRIDAY SATURDAY SUNDAY

CONTRACTOR

CONTRACTOR'S SUPERVISOR

EQUIPMENT	HOURS WORKED	WORK PERFORMED
	<u>3 1/2</u>	Sampling + vase shear testing, BH-3, 4 on Pond GF
	<u>5 1/2</u>	Safety meeting, equip. arrangement
Total =	<u>9 hrs</u>	and setup

OTHER ACTIVITIES/COMMENTS

- 7:00 - 8:30 : Arrive at site, toolbox safety meeting. Unloaded air tanks from Air Liquide delivery truck
- 8:30 - 9:30 : Setup barge w/ air tanks waiting for phosphine meter
- 9:30 - 11:30 : Arranged delivery of supplied air system. Setup of air lines and Cane masts. Gear up and mobilized to barge
- 11:30 - 15:00 : On pond GF, completed sampling at loc. BH-3, completed vase shear testing on locs. BH-3 + BH-4. Noticed abundant phosphine bubbles during test work down to air reserve after loc. BH-4
- 15:00 - 15:30 : Demobilized from pond, removed and stored. Rain and thunder prevents return to Pond
- 15:30 - 16:00 : Rest break
- 16:00 - 16:30 : Cleaning of respirators, planning for Friday Departed site
- Approved 7/10/97
M. Cain
 Bechtel Field Rep.
- Jeff. Smith*
 BCI, Sr. Project Geologist
 7/10/97

AT TRANSMITTED WITH THIS REPORT

Vase shear test data, pond GF - BH-1

ROUTE TO: G. Oberholzer	Bechtel	COPY TO: BCI Files
DATE 7/11/97		PAGE 1 OF 1
PROJECT NO. 979704		CLIENT Bechtel
LOCATION EMC Decatella TD		
BCI STAFF T. Smith M. Cain		

DAILY FIELD REPORT

WEATHER WIND DIRECTION W WIND SPEED 10
CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
FRIDAY SATURDAY SUNDAY

CONTRACTOR

CONTRACTOR'S SUPERVISOR

EQUIPMENT	HOURS WORKED	WORK PERFORMED
	4½	Sampling + vane shear tests 8E (BH-5), 13S (BH-1, 2, 3)
	3½	Barge moving, equip. moving, planning
Total -	8	

OTHER ACTIVITIES/COMMENTS

1:15- 7:45: Arrive at site, gear up, mobilize to barge on pond 8E.

1:45- 9:05: Completed vane shear tests and sampling at loc. BH-5,
using supplier air system

5- 11:00: Demobilized from barge, gear down. Barge secured
and moved to pond 13S with equipment.

11:00- 14:00: Sampled and conducted vane shear tests at locations
BH-1, 2, and 3.

14:00- 15:30: Demobbed from barge, gear down, rest break, discussed
plans for Sat., departed site.

Barge moved from 13S to 12S. Ordered add'l air
bottles.

Approved 7/11/97

JSS (initials)

Bechtel Field Rep.


JSS
BCI Sr. Project Geologist
7/11/97

TRANSMITTED WITH THIS REPORT

Vane shear calculations, Pond 8E, test locs BH-2, 3, + 4



BROMWELL & CARRIER, INC.

P.O. Box 6467
Lakeland, FL 33807
Phone 813-644-8591
Fax 813-644-6920

ROUTE TO: G. Oberholzer ^{Bechtel}

COPY TO: BCI Files

DATE 7/12/97

PAGE 1 OF 1

PROJECT NO. 979704

CLIENT Bechtel

LOCATION FMC, Pocatello ID

BCI STAFF T. Smith M. Cain

WEATHER WIND DIRECTION W WIND SPEED 25
CLOUDY SUNNY OVERCAST RAINY STORMY DAY MONDAY TUESDAY WEDNESDAY THURSDAY
FRIDAY SATURDAY SUNDAY

CONTRACTOR

CONTRACTOR'S SUPERVISOR

EQUIPMENT	HOURS WORKED	WORK PERFORMED
	3	Sampled + vane shear testing, Pond 12S, BH-3, 2
	11	Mobilization/ demobilization to barge, gear up/down,
Total =	7	Weather breaks, planning, safety meeting

OTHER ACTIVITIES/COMMENTS

7:15 - 8:10: Arrive at site. Toolbox safety meeting, planning for sampling ponds 12S + 11S. Discussed sampling pond 15S. Gear up and mobilize to barge

8:45 - 9:45: On pond 12S, vane shear testing and sampling at loc. BH-3. Mobilized off pond per Bechtel. Cold, rain + wind

10:45 - 11:50: Rest break. Loaded barges with fresh air tanks

11:50 - 12:30: Lunch break for weather

13:30 - 14:00: Return to site, gear up, mobilized to barge

14:00 - 15:30: On pond 12S, vane shear testing + sampling at BH-2

15:30 - 16:00: Off barge, gear down, rest period - will resume on Monday AM, departed site

Approved 7/12/97

TRANSMITTED WITH THIS REPORT

BCI Sr. Project Geotech

Bechtel Field Rep.

7/12/97

ROUTE TO: G. Oberholzer ^{Bectel} COPY TO: BCI Files

DATE 7/14/97 PAGE 1 OF 1

PROJECT NO. 979704 CLIENT Bectel

LOCATION FMC, Pocatello, Idaho

BCI STAFF T. Smith M. Cain

WEATHER WIND DIRECTION NE WIND SPEED 5
CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
FRIDAY SATURDAY SUNDAY

CONTRACTOR

CONTRACTOR'S SUPERVISOR

QUIPMENT	HOURS WORKED	WORK PERFORMED
	2 3/4	Vane shear testing and sampling pond 12S BH-1, pond 11S, BH-1
	6 1/4	Mob/donch to barge equip packing, chipping,
Total =	9 1/2	rest break

OTHER ACTIVITIES/COMMENTS

105 - 7:55: Arrive at site, gear up, mobilize to barge on pond 12S

55. 9:15: Vane shear testing and sampling on pond 12S, location BH-1

11:25: Demob. from pond, gear down. Assistance in moving barge to pond 11S. Loaded new air bottles. Rest break. Gear up, mobilize to barge.

25 - 12:45: Vane shear testing and sampling on pond 11S, loc. BH-1

2:45 - 14:45: Demobbed. from barge, gear down, unload equipment and packing. Rest break, de-port site

14:45 - 16:35: Equipment packing and shipping

T. J. Smith
BCI Sr. Project Geologist
7/14/97

IT IS TRANSMITTED WITH THIS REPORT

ROUTE TO: G. Oberholzer		COPY TO: BCI Files
DATE 7/15/97		PAGE 1 OF 1
PROJECT NO. 970704		CLIENT Bectel
LOCATION FMC, Pocatello, Idaho		
BCI STAFF T. Smith, M. Cain		

DAILY FIELD REPORT

WEATHER WIND DIRECTION N WIND SPEED 5
 CLOUDY SUNNY OVERCAST RAINY STORMY

DAY MONDAY TUESDAY WEDNESDAY THURSDAY
 FRIDAY SATURDAY SUNDAY

CONTRACTOR

CONTRACTOR'S SUPERVISOR

QUIPMENT	HOURS WORKED	WORK PERFORMED
	4	Equipment packing + shipping, vane shear data reduction

OTHER ACTIVITIES/COMMENTS

5:00- 8:20: Purchased packing supplies for equipment in town.

8:20- 9:30: Arrived at site, loaded and parked equipment, stored air bottles for pickup, collected vane shear data from Bectel.

1:30- 10:00: Departed site, shipped equipment at FedEx.

6:00- 12:00: Vane shear data calculations completed and printed spreadsheets.

T. Smith
BCI Senior Project Geologist
7/15/97

Calculation Sheet



Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
K (l/ft^2)	17.46	7.37	2.18

Pond 8E
 Borehole BH-1
 Coordinates J+75'; Z+30'
 Date July 8, 1997

Originator G. Oberholzer
 Project EMC Pocatello
 Object

Date _____
 Job No. _____

Calc. No. _____
 Checked _____

Rev. No. _____
 Date _____
 Sheet No. _____

Depth*	Vane Size	Initial Vane + Rod (in-lb)	Remolded Vane + Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
(ft)									
4.5	Large	113	16	0	0	113	16	21	3
6.0	"	108	7	0	0	108	7	20	1
7.5	"	100	15	0	0	100	15	18	3
9.0	"	170	21	0	0	170	21	31	4
10.5	"	100	18	0	0	100	18	18	3
12.0	"	197	25	0	0	197	25	36	5

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 4.0'

Depth of water over sediment = 4.0' - 2.2' = 1.8'

Piston samples taken at depths of 4.0', 7.0', 10.0', and 13.0' below deck of barge.

Slag encountered at depth of 14.0' below deck of barge.

Calculation Sheet

Bechtel

Originator G. Oberholzer Date _____
 Project EMC Pocatello Job No. _____
 Subject _____

Calc. No. _____
 Checked _____
 Rev. No. _____
 Date _____
 Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
$K \left(\frac{1}{ft^3}\right)$	17.46	7.37	2.18

Pond BE
 Borehole BH-2
 Coordinates I+45'; 3+40'
 Date July 9, 1997

Depth [#] (ft)	Vane Size	Initial Vane + Rod (in-lb)	Remolded Vane + Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
4.7	Large	151	31	0	0	151	31	27	6
6.2	"	56	13	0	0	56	13	10	2
7.7	"	47	27	0	0	47	27	9	5
9.2	"	200	21	0	0	200	21	36	4
10.7	"	102	18	0	0	102	18	19	3
12.2	"	85	49	0	0	85	49	15	9

Notes: * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 4.2'

Depth of water over sediment = $4.2 - 2.2 = 2.0'$

Piston samples taken at depths of 4.2', 7.2', 10.2', and 13.2' below deck of barge.

Slag encountered at depth of 14.0' below deck of barge.



Calculation Sheet

Bechtel

Originator G. Oberholzer Date _____
 Project EMC Pocatello Job No. _____
 Subject _____

Rev. No. _____
 Date _____
 Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k (lbf/in^3)	17.46	7.37	2.18

Pond 8E
 Borehole BH-3
 Coordinates H+20'; 4+50'
 Date July 10, 1997

Depth [*] (ft)	Vane Size	Initial Vane+Rod (in-lb)	Remolded Vane+Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
5.0	Large	83	17	0	0	83	17	15	3
6.5	"	50	10	0	0	50	10	9	2
8.0	"	64	11	0	0	64	11	12	2
9.5	"	157	18	0	0	157	18	29	3
11.0	"	87	16	0	0	87	16	16	3
12.5	Medium	47	15	0	0	47	15	29	9
13.5	"	77	14	0	0	77	14	47	9

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 4.5'

Depth of water over sediment = $4.5 - 2.2 = 2.3'$

Piston samples taken at depths of 4.5', 7.5', 10.5', and 13.5' below deck of barge.

Slag encountered at depth of 14.5' below deck of barge.



Calculation Sheet

Bechtel

Originator G. Oberholzer
 Object FMC Pocatello
 Subject _____

Date _____
 Job No. _____
 Calc. No. _____
 Checked _____

Rev. No. _____
 Date _____
 Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k (lb/ft^2)	17.46	7.37	2.18

Pond 8E
 Borehole BH-4
 Coordinates H+85'; Z+45'
 Date July 10, 1997

Depth [*] (ft)	Vane Size	Initial Vane + Rod (in-lb)	Remolded Vane + Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
4.7	Large	177	18	0	0	177	18	32	3
6.2	"	100	24	0	0	100	24	18	4
7.7	Medium	85	10	0	0	85	10	52	6
9.2	"	100	7	0	0	100	7	61	4
10.7	"	106	30	0	0	106	30	65	18
12.2	"	137	13	0	0	137	13	84	8
13.7	"	70	10	0	0	70	10	43	6

Notes : * - All depths measured from deck of barge.
 Distance from deck of barge to water surface = 2.2'
 Distance from deck of barge to top of sediment = 4.2'
 Depth of water over sediment = $4.2 - 2.2 = 2.0'$
 Piston samples taken at depths of 4.2', 7.2', 10.2', 13.2',
 and 14.0' below deck of barge.
 Slag encountered at depth of 15.0' below deck of barge.



Calculation Sheet

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k (ft^3/ft^2)	17.46	7.37	2.18

Pond 8E
Borehole BH-5
Coordinates H+20'; L+60'
Date July 11, 1997

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 4.5'

Depth of water over sediment = 4.5 - 2.2 = 2.3'

Piston samples taken at depths of 4.5, 7.5, 10.5, and

13.5' below deck of barge.

Slag encountered at depth of 14.0' below deck of barge.

Slag encountered at depth of 14.0' below deck of barge.

Bechtel

Rev. No.

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Calculation Sheet

Bechtel

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
K (lbf/in^2)	17.46	7.37	2.18

Pond 115
 Borehole BH-1
 Coordinates F; 2 + 30'
 Date July 14, 1997

Originator S. Oberholzer Date _____
 Project EMC Pocatello Job No. _____
 Subject _____

Calc. No. _____
 Checked _____
 Date _____

Rev. No. _____
 Date _____
 Sheet No. _____

Depth*	Vane Size	Initial Vane + Rod (in-lb)	Remolded Vane + Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
(ft)									
5.0	Large	16	5	0	0	16	5	3	1
6.5	"	86	25	0	0	86	25	16	5
8.0	"	62	17	0	0	62	17	11	3
9.5	"	97	17	0	0	97	17	18	3
11.0	"	124	22	0	0	124	22	23	4
12.5	"	127	20	0	0	127	20	23	4
14.0	"	235	27	0	0	235	27	43	5
15.5	Medium	103	7	0	0	103	7	63	4

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 4.5'

Depth of water over sediment = $4.5 - 2.2 = 2.3'$

Piston samples taken at depths of 4.5', 7.5', 10.5', and 13.5' below deck of barge.

Slag encountered at depth of 16.0' below deck of barge.

Calculation Sheet

Originator G. Oberholzer Date _____
 Project FMC Pocatello Job No. _____
 Subject _____

Calc. No. _____
 Checked _____

Rev. No. _____
 Date _____

Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
K (lbf/in^2)	17.46	7.37	2.18

Pond 125
 Borehole BH-1
 Coordinates D, 2+35'
 Date July 14, 1997

Depth* (ft)	Vane Size	Initial Vane+Rod (in-lb)	Remolded Vane+Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
8.0	Large	13	7	0	0	13	7	2	1
9.5	"	46	10	0	0	46	10	8	2
11.0	"	88	13	0	0	88	13	16	2
12.5	"	242	42	0	0	242	42	44	8
14.0	Medium	76	11	0	0	76	11	47	7
15.5	"	80	10	0	0	80	10	49	6
17.0	"	77	14	0	0	77	14	47	9

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 7.5'

Depth of water over sediment = $7.5 - 2.2 = 5.3'$

Piston samples taken at depths of 7.5', 10.5', 13.5', and 16.5' below deck of barge.

Slag encountered at depth of 17.5' below deck of barge.



Calculation Sheet

Originator G. Oberholzer
 Project FMC Pocatello
 Subject _____

Date _____
 Job No. _____

Calc. No. _____
 Checked _____

Rev. No. _____
 Date _____

Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
K (lbf/in^2)	17.46	7.37	2.18

Pond 125
 Borehole BH-2
 Coordinates D; 4+10'
 Date July 12, 1997

Depth (ft)*	Vane Size	Initial Vane+Rod (in-lb)	Remolded Vane+Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
8.0	Large	119	21	0	0	119	21	22	4
9.5	"	204	13	0	0	204	13	37	2
11.0	"	176	20	0	0	176	20	32	4
12.5	"	176	19	0	0	176	19	32	3
14.0	Medium	99	11	0	0	99	11	61	7
15.5	"	81	10	0	0	81	10	50	6
17.0	"	98	10	2	0	96	10	59	6
18.5	"	107	11	4	0	103	11	63	7

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 7.5'

Depth of water over sediment = $7.5 - 2.2 = 5.3'$

Piston samples taken at depths of 7.5', 10.5', 13.5', 16.5', and 18.5' below deck of barge.

Slag encountered at depth of 19.5' below deck of barge.

Calculation Sheet

Bechtel

Originator G. Oberholzer
 Project FMC Pocatello
 Subject _____

Date _____
 Job No. _____

Calc. No. _____
 Checked _____

Rev. No. _____
 Date _____
 Sheet No. _____

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k (lb/in^2)	17.46	7.37	2.18

Pond 125
 Borehole BH-3
 Coordinates D+5'; 5+90'
 Date July 12, 1997

Depth (ft)*	Vane Size	Initial Vane+Rod (in-lb)	Remolded Vane+Rod (in-lb)	Initial Rod (in-lb)	Remolded Rod (in-lb)	Initial Vane (in-lb)	Remolded Vane (in-lb)	Initial Shear (psf)	Remolded Shear (psf)
8.3	Large	5	9	0	0	5	0	1	0
9.8	"	26	8	0	0	26	8	5	1
11.3	"	64	16	0	0	64	16	12	3
12.8	"	82	17	0	0	82	17	15	3
14.3	"	181	22	0	0	181	22	33	4
15.8	Medium	97	11	0	0	97	11	60	7
17.3	"	111	14	3	0	108	14	66	9
18.8	"	116	13	3	0	113	13	69	8

Notes: * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 7.8'

Depth of water over sediment = $7.8' - 2.2' = 5.6'$

Piston samples taken at depths of 7.8', 10.8', 13.8', 16.8', and 18.5' below deck of barge.

Slag encountered at depth of 19.5' below deck of barge.

Calculation Sheet

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Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k (ft^3/s)	17.46	7.37	2.18

Pond 135
Borehole BH-1
Coordinates A+90'; 2+50'
Date July 11, 1997

Originator G. Oberholzer
rect EMC Pocatello
ject

Date _____
Job No. _____

Calc. No. _____
Checked _____

Rev. No. _____
Date _____
Street No. _____

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 13.5'

$$\text{Depth of water over sediment} = 13.5 - 2.2 = 11.3$$

Piston samples taken at depths of 14.0' and 16.0' below deck of barge.

Slag encountered at depth of 17.0' below deck of barge.

Calculation Sheet

Vane Size	Small	Medium	Large
Diameter (in)	3.0	4.0	6.0
Height (in)	6.0	8.0	12.0
k ($\text{1}/\text{ft}^3$)	17.46	7.37	2.18

Pond 135
Borehole BH-2
Coordinates A190'; 4+15'
Date July 11, 1997

Notes : * - All depths measured from deck of barge.

Distance from deck of barge to water surface = 2.2'

Distance from deck of barge to top of sediment = 13.8'

$$\text{Depth of water over sediment} = 13.8 - 2.2 = 11.6$$

Piston samples taken at depths of 13.8', 15.8', and

17.8' below deck of barge.

Slag encountered at depth of 18.8' below deck of barge.

Originator G. Oberholzer Date _____
Project FMC Pocatello Job # _____
Subject _____

Date _____
Job No. _____

Calc. No. _____
Checked _____

Rev. No. _____
Date _____
Sheet No. _____

Bechtel



APPENDIX B
VANE SHEAR DATA

VANE SHEAR RESULTS

Location: Pond 8E, BH-1

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 8, 1997

Tested by: M. Cain, T. Smith

VANE SIZE = SMALL MEDIUM LARGE

Diameter (inches) = 3.0 4.0 6.0

Height (inches) = 6.0 8.0 12.0

K (cu. ft.) = 0.0667 0.1344 0.4536

DEPTH (ft)	VANE SIZE	FIELD RESULTS						SHEAR STRENGTH	
		INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
4.5	Large	113	16	0	0	113	16	21	3
6.0	Large	108	7	0	0	108	7	20	1
7.5	Large	100	15	0	0	100	15	18	3
9.0	Large	170	21	0	0	170	21	31	4
10.5	Large	100	18	0	0	100	18	18	3
12.0	Large	197	25	0	0	197	25	36	5

Notes: All depths relative to deck of barge *water surface elevation = 4480.3 ft.

Deck to water = 2.2 ft.

Deck to sediment = 4.0 ft.

Water depth = 4.0 - 2.2 = 1.8 ft.

Piston tube samples collected at 4, 7, 10, and 13 feet (from deck)

Pond bottom at 14 ft.

VANE SHEAR RESULTS

Location: Pond 8E, BH-2

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 9, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
4.7	Large	151	31	0	0	151	31	28	6
6.2	Large	56	13	0	0	56	13	10	2
7.7	Large	47	27	0	0	47	27	9	5
9.2	Large	200	21	0	0	200	21	37	4
10.7	Large	102	18	0	0	102	18	19	3
12.2	Large	85	49	0	0	85	49	16	9

Notes: All depths relative to deck of barge *water surface elevation = 4480.3 ft.
 Deck to water = 2.2 ft.
 Deck to sediment = 4.2 ft.
 Water depth = 4.2 - 2.2 = 2.0 ft.
 Piston tube samples collected at 4.2, 7.2, 10.2, and 13.2 feet (from deck)
 Pond bottom at 14 ft.

VANE SHEAR RESULTS

Location: Pond 8E, BH-3

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 10, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
5.0	Large	83	17	0	0	83	17	15	3
6.5	Large	50	10	0	0	50	10	9	2
8.0	Large	64	11	0	0	64	11	12	2
9.5	Large	157	18	0	0	157	18	29	3
11.0	Large	87	16	0	0	87	16	16	3
12.5	Medium	47	15	0	0	47	15	29	9
13.5	Medium	77	14	0	0	77	14	48	9

Notes: All depths relative to deck of barge

*water surface elevation = 4480.3 ft.

Deck to water = 2.2 ft.

Deck to sediment = 4.5 ft.

Water depth = 4.5 - 2.2 = 2.3 ft.

Piston tube samples collected at 4.5, 7.5, 10.5, and 13.5 feet (from deck)

Pond bottom at 14.5 ft.

VANE SHEAR RESULTS

Location: Pond 8E, BH-4

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 10, 1997

Tested by: M. Cain, T. Smith

VANE SIZE = SMALL MEDIUM LARGE

Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4636

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
4.7	Large	177	18	0	0	177	18	33	3
6.2	Large	100	24	0	0	100	24	18	4
7.7	Medium	85	10	0	0	85	10	53	6
9.2	Medium	100	7	0	0	100	7	62	4
10.7	Medium	106	30	0	0	106	30	66	19
12.2	Medium	137	13	0	0	137	13	85	8
13.7	Medium	70	10	0	0	70	10	43	6

Notes: All depths relative to deck of barge *water surface elevation = 4480.3 ft.

Deck to water = 2.2 ft.

Deck to sediment = 4.2 ft.

Water depth = 4.2 - 2.2 = 2.0 ft.

Piston tube samples collected at 4.2, 7.2, 10.2, and 13.2 feet (from deck)

Pond bottom at 15.0 ft.

VANE SHEAR RESULTS

Location: Pond 8E, BH-5

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 11, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
5.0	Large	45	7	0	0	45	7	8	1
6.5	Large	47	15	0	0	47	15	9	3
8.0	Large	239	27	0	0	239	27	44	5
9.5	Large	114	13	0	0	114	13	21	2
11.0	Large	131	15	0	0	131	15	24	3
12.5	Large	117	25	0	0	117	25	21	5

Notes: All depths relative to deck of barge *water surface elevation = 4480.3 ft.

Deck to water = 2.2 ft.

Deck to sediment = 4.5 ft.

Water depth = 4.5 - 2.2 = 2.3 ft.

Piston tube samples collected at 4.5, 7.5, 10.5, and 13.5 feet (from deck)

Pond bottom at 14.0 ft.

VANE SHEAR RESULTS

Location: Pond 11S, BH-1

Bechtel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 14, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
5.0	Large	16	5	0	0	16	5	3	1
6.5	Large	86	25	0	0	86	25	16	5
8.0	Large	62	17	0	0	62	17	11	3
9.5	Large	97	17	0	0	97	17	18	3
11.0	Large	124	22	0	0	124	22	23	4
12.5	Large	127	20	0	0	127	20	23	4
14.0	Large	235	27	0	0	235	27	43	5
15.5	Medium	103	7	0	0	103	7	64	4

Notes: All depths relative to deck of barge *water surface elevation = 4469.4 ft.

Deck to water = 2.2 ft.

Deck to sediment = 4.5 ft.

Water depth = 4.5 - 2.2 = 2.3 ft.

Piston tube samples collected at 4.5, 7.5, 10.5, and 13.5 feet (from deck)

Pond bottom at 16.0 ft.

VANE SHEAR RESULTS

Location: Pond 12S, BH-1

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 14, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (Inches) =	3.0	4.0	6.0
Height (Inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
8.0	Large	13	7	0	0	13	7	2	1
9.5	Large	46	10	0	0	46	10	8	2
11.0	Large	88	13	0	0	88	13	16	2
12.5	Large	242	42	0	0	242	42	44	8
14.0	Medium	76	11	0	0	76	11	47	7
15.5	Medium	80	10	0	0	80	10	50	6
17.0	Medium	77	14	0	0	77	14	48	9

Notes: All depths relative to deck of barge *water surface elevation = 4469.2 ft.

Deck to water = 2.2 ft.

Deck to sediment = 7.5 ft.

Water depth = 7.5 - 2.2 = 5.3 ft.

Piston tube samples collected at 7.5, 10.5, 13.5, and 16.5 feet (from deck)

Pond bottom at 17.5 ft.

VANE SHEAR RESULTS

Location: Pond 12S, BH-2

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 12, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
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Diameter (inches) =	3.0	4.0	6.0
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Height (inches) =	6.0	8.0	12.0
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K (cu. ft.) =	0.0567	0.1344	0.4536
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FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
8.0	Large	119	21	0	0	119	21	22	4
9.5	Large	204	13	0	0	204	13	37	2
11.0	Large	176	20	0	0	176	20	32	4
12.5	Large	176	19	0	0	176	19	32	3
14.0	Medium	99	11	0	0	99	11	61	7
15.5	Medium	81	10	0	0	81	10	50	6
17.0	Medium	98	10	2	0	96	10	60	6
18.5	Medium	107	11	4	0	103	11	64	7

Notes: All depths relative to deck of barge *water surface elevation = 4469.2 ft.

Deck to water = 2.2 ft.

Deck to sediment = 7.5 ft.

Water depth = 7.5 - 2.2 = 5.3 ft.

Piston tube samples collected at 7.5, 10.5, 13.5, 16.5, and 18.5 feet (from deck)

Pond bottom at 19.5 ft.

VANE SHEAR RESULTS

Location: Pond 12S, BH-3

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 12, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
8.3	Large	5	0	0	0	5	0	1	0
9.8	Large	26	8	0	0	26	8	5	1
11.3	Large	64	16	0	0	64	16	12	3
12.8	Large	82	17	0	0	82	17	15	3
14.3	Large	181	22	0	0	181	22	33	4
15.8	Medium	97	11	0	0	97	11	60	7
17.3	Medium	111	14	3	0	108	14	67	9
18.8	Medium	116	13	3	0	113	13	70	8

Notes: All depths relative to deck of barge *water surface elevation = 4469.2 ft.

Deck to water = 2.2 ft.

Deck to sediment = 7.8 ft.

Water depth = 7.8 - 2.2 = 5.6 ft.

Piston tube samples collected at 7.8, 10.0, 13.8, 16.8, and 18.5 feet (from deck)

Pond bottom at 19.5 ft.

VANE SHEAR RESULTS

Location: Pond 13S, BH-1

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 11, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (Inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4538

FIELD RESULTS								SHEAR STRENGTH		
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)	
14.0	Large	15	5	0	0	15	5	3	1	
15.0	Large	34	10	0	0	34	10	6	2	
16.0	Large	71	14	0	0	71	14	13	3	

Notes: All depths relative to deck of barge *water surface elevation = 4467.9 ft.

Deck to water = 2.2 ft.

Deck to sediment = 13.5 ft.

Water depth = 13.5 - 2.2 = 11.3 ft.

Piston tube samples collected at 14.0 and 16.0 feet (from deck)

Pond bottom at 17.0 ft.

VANE SHEAR RESULTS

Location: Pond 13S, BH-2

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 11, 1997

Tested by: M. Cain, T. Smith

VANE SIZE =	<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Diameter (inches) =	3.0	4.0	6.0
Height (inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
14.3	Large	11	0	0	0	11	0	2	0
15.3	Large	14	4	0	0	14	4	3	1
16.3	Large	27	11	0	0	27	11	5	2
17.3	Large	44	15	0	0	44	15	8	3
18.3	Large	106	20	0	0	106	20	19	4

Notes: All depths relative to deck of barge *water surface elevation = 4467.9 ft.

Deck to water = 2.2 ft.

Deck to sediment = 13.8 ft.

Water depth = 13.8 - 2.2 = 11.6 ft.

Piston tube samples collected at 13.8, 15.8, and 17.8 feet (from deck)

Pond bottom at 18.8 ft.

VANE SHEAR RESULTS

Location: Pond 13S, BH-3

Bectel/FMC: Geotechnical Testing & Sampling

Eastern Michaud Flats Project

BCI Project No. 979704

Date: July 11, 1997

Tested by: M. Cain, T. Smith

VANE SIZE = SMALL MEDIUM LARGE

Diameter (Inches) =	3.0	4.0	6.0
Height (Inches) =	6.0	8.0	12.0
K (cu. ft.) =	0.0567	0.1344	0.4536

FIELD RESULTS								SHEAR STRENGTH	
DEPTH (ft)	VANE SIZE	INITIAL VANE+ROD (in-lbs)	REMOLDED VANE+ROD (in-lbs)	INITIAL ROD (in-lbs)	REMOLDED ROD (in-lbs)	INITIAL VANE (in-lbs)	REMOLDED VANE (in-lbs)	INITIAL (psf)	REMOLDED (psf)
12.5	Large	9	2	0	0	9	2	2	0
13.5	Large	20	8	0	0	20	8	4	1
14.5	Large	38	17	0	0	38	17	7	3
15.5	Large	63	11	0	0	63	11	12	2
16.5	Large	61	12	0	0	61	12	11	2
17.5	Large	112	15	0	0	112	15	21	3

Notes: All depths relative to deck of barge *water surface elevation = 4467.9 ft.

Deck to water = 2.2 ft.

Deck to sediment = 12.0 ft.

Water depth = 12.0 - 2.2 = 9.8 ft.

Piston tube samples collected at 12.5, 14.5, and 17.0 feet (from deck)

Pond bottom at 18.0 ft.

APPENDIX L

FINAL REPORT, GEOTECHNICAL LABORATORY RESULTS

PHASE IV PONDS SAMPLES



**FINAL REPORT
GEOTECHNICAL LABORATORY TEST RESULTS
PONDS 8E, 11S, 12S, AND 13S
FMC'S ELEMENTAL PHOSPHORUS PLANT**

Eastern Michaud Flats Project
Pocatello, Idaho
Subcontract No. 21372-AS-01
Amendment No. 009

Submitted To:

**Bechtel Environmental, Inc.
50 Beale Street
San Francisco, Ca 94105-1895**

Attention: Gary Oberholtzer

Submitted By:

**Mountain States Analytical, Inc.
1645 West 2200 South
Salt Lake City, Ut 84119**

And

**Applied Geotechnical Engineering Consultants, Inc.
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PROJECT NO. 973376

OCTOBER 13, 1997

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REPORT

SCOPE OF WORK

Mountain States Analytical, Inc. (MSAI), and Applied Geotechnical Engineering Consultants, Inc. (AGEC), were requested to collaboratively conduct geotechnical laboratory tests for Ponds 8E, 11S, 12S, and 13S sludge samples at the FMC, Inc. Elemental Phosphorus Plant in Pocatello, Idaho. The work was conducted in accordance with our proposal submitted to Bechtel Environmental, Inc. (BEI), dated June 19, 1997. The tests were conducted to characterize and provide parameters for the closure design of ponds 8E, 11S, 12S, and 13S.

The following tests were requested and conducted in general accordance with the listed test methods:

<u>Test</u>	<u>Test Method</u>	<u>No. Tests Completed</u>
Moisture Content	ASTM D2216	44
Atterberg Limit	ASTM D4318	9
Specific Gravity	ASTM D854	6
Gradation/Hydrometer	ASTM D422	23
One-Dimensional Consolidation	ASTM D2435	9

The sludge samples contained elemental phosphorus and had a consistency of a slurry, which required special procedures for conducting the tests. In our previous study in 1994, MSAI and AGEC developed special procedures for conducting tests with phosphorus laden samples. A description of these handling techniques and test methods listed above were included in our previous report.

Mobilization to the FMC facility in Pocatello, Idaho, occurred on July 27, 1997. The equipment was setup and tests were conducted in the FMC Mining Laboratory from July 28 to August 25, 1997.

DESCRIPTION OF TEST METHODS

All testing was performed in accordance with ASTM procedures except where the nature of the material (very soft consistency and phosphorus content) required that special procedures be adopted. Variances from the ASTM procedures are described in this section. The number system of the ASTM procedures have been maintained to provide cross referencing. Those sections of the procedures which were adhered to as specified in the ASTM documents, have not been reproduced here.

Moisture Content (ASTM D2216-80)

This method is an adaptation of the ASTM standard D2216-80, "Standard Method for Laboratory Determinations of Water (Moisture) content of Soil, Rock, and Soil-Aggregate

Mixtures." As such, in determining the moisture contents of elemental white phosphorus laden materials, method D2216-80 should be followed as written, incorporating the modifications noted below:

1. Scope

- 1.1 This method includes laboratory moisture determinations of elemental white phosphorus laden materials.
- 1.3 Since white phosphorus is vaporized out of the sample during the analysis, the accuracy of this method is inversely proportional to the relative concentration of white phosphorus in the sample. To improve the accuracy, the sample is analyzed for percent white phosphorus (by FMC Method No. G-2, Toluene Insolubles for Sludge and Precipitator Dust, described below), and the moisture content values corrected accordingly.

FMC Method G-2 Summary

Phosphorous, sludges, and precipitator dusts are occasionally analyzed to determine the concentration of phosphorous. To determine phosphorous concentration in these samples, the phosphorous is extracted with toluene using a ceramic thimble in an extraction apparatus. Upon completion, the toluene solution is then prepared for analysis on the Hewlett Packard 5890 gas detector. The instrument will analyze for phosphorous and calculate the phosphorous concentration in the sample.

2. Summary of Method

- 2.1 The sample is dried to a constant mass in a drying oven controlled at 150 ± 5°C. The mass lost is that of the water and the white phosphorus. The remaining mass is that of the dry material minus the elemental white phosphorus. However, the elemental white phosphorous is a solid and must be corrected for. This is done by determining the percent elemental white phosphorous and calculating its weight in grams relative to the total sample. This weight is then added on to the uncorrected dry sample weight and subtracted from the uncorrected water weight. This allows the corrected moisture content to be calculated by dividing the corrected weight of water by the corrected weight of dry soil.

3. Significance and Use

- 3.4 The sample is dried at 150°C.

4. Apparatus

- 4.1 Drying oven, heated to $150 \pm 5^{\circ}\text{C}$.
- 4.3 Specimen containers, consisting of Erlymeyer flasks fitted with two-hole rubber stoppers. Two metal or Teflon tubes are inserted through the holes in each stopper, one to purge the flask with dry O_2 -free N_2 , the other to exhaust N_2 and vapors from the sample. The exhaust tube should reach to the outside of the oven to avoid contaminating the oven with phosphorus and/or phosphorus oxides.
- 4.4 Desiccators are not used in this method.

6. Test Specimen

- 6.2.1 Test specimen masses are approximately 20 g.

7. Procedure

- 7.2 Determine the mass of a clean, dry flask; introduce the test specimen; and determine the mass of the specimen.
- 7.3 Insert the two-hole stopper into the mouth of the flask, purge the flask with N_2 (20mL/min or faster), and heat it in an oven controlled at $150 \pm 5^{\circ}\text{C}$, and dry the specimen to a constant mass.
- 7.4 After the material has reached a constant weight, remove the flask from the oven and allow the flask to cool to room temperature under the N_2 purge. Remove the stopper and determine the mass of the flask and its contents.

Atterberg Limits (ASTM D4318-93)

1. Scope

- 1.1 This test method covers the determination of the Liquid Limit, Plastic Limit, and Plasticity Index of phosphorus laden samples.

4. Summary of Test Method

- 4.1 Due to the presence of elemental phosphorus in the samples, the tests were conducted inside a glove box with a nitrogen atmosphere. The portion of the liquid limit test conducted with the liquid limit device and the rolling of the soil into a thread for the plastic limit test were conducted inside the glove box. The moisture determinations were conducted using the modified ASTM D 2216 method described above.

6. Apparatus

6.1 The standard equipment described in the ASTM test method was used to conduct the test. In addition, the tests were conducted in a glove box purged with dry, O₂-free N₂ to create an oxygen free atmosphere.

10. Preparation of Test Specimens

10.1 *Wet Preparation* - The samples tested had very high moisture contents, much higher than the Liquid Limit and Plastic Limit values, thus requiring drying of the samples prior to testing. Approximately 100 percent passed through the No. 40 sieve, based on visual observation as verified with gradation tests.

The drying of samples was accomplished by blotting the samples with paper towels repeatedly.

14. Procedure (Liquid Limit)

14.1 The *ONE-POINT LIQUID LIMIT- METHOD B* option was used. The liquid limit was performed inside the glove box and the select portion of the sample for moisture determination was placed in an Erlenmeyer flask and dried using the modified ASTM D2216 method described above.

17. Procedure (Plastic Limit)

17.1 The glove box was equipped with neoprene gloves. Silver lining gloves were placed over the neoprene gloves for protection.

18/19. Calculation

The uncorrected and P₄ corrected moisture contents were calculated.

Specific Gravity Test (ASTM D854-92)

1. Scope

1.1 This test method covers the determination of specific gravity of phosphorus laden sludge samples (100% passing the No. 4 sieve) by means of a pycnometer.

5. Apparatus

5.1 A 250 ml volumetric flask was used. The entrapped air was removed by a vacuum with less than 30 inches of absolute pressure.

6. Reagents

6.1 Distilled water was used for the reagent.

7. Test Specimen

7.1 Oven dried samples were used. The samples were dried in the oven described by the moisture determination method. (Modified ASTM D 2216)

9. Procedure

Test Method A - the procedure for Oven-Dried specimens was used.

10. Calculation

The specific gravity was calculated based on the measured weight; no correction for phosphorus content was applied as the majority of the phosphorus had been vaporized in the drying process prior to testing.

Gradation/Hydrometer Tests (ASTM D422-63)

1. Scope

1.1 This test method covers the quantitative determination of the particle size distribution of phosphorus laden sludge samples.

3. Apparatus

3.1 Standard equipment was used for the test. Apparatus A was used for stirring the sample.

4. Dispersing Agent

4.1 A solution of sodium hexametaphosphate (40 g/L of solution) was used.

5. Test Sample

5.1 Each sample was prepared by placing in a sample dish the amount of wet sample that would dry to approximately 50 to 65 g of dry sample, based on the predetermined moisture content of the sample.

7. Determination of Composite Correction for Hydrometer Reading

7.1 The correction was determined as described in the ASTM method.

8. Hygroscopic Moisture

8.1 A hygroscopic moisture was not determined, but the previously conducted moisture content on a sample from the sample jar was assumed to be representative of the moisture content of the gradation/hydrometer sample.

9. Dispersion of Soil Sample

9.1 The dispersion of the sample was accomplished as described in the ASTM method using stirring apparatus A.

10. Hydrometer Test

The hydrometer portion of the test was conducted as described in the ASTM method.

11. Sieve Analysis

Following the last reading for the hydrometer test, the sample was transferred to a No. 200 sieve and washed. The sample was washed in the sink in the FMC lab room adjacent to the mining lab area. The material retained on the No. 200 sieve was dried in the drying oven according to the modified ASTM D2216 method. After drying a sieve analysis was conducted on the sample.

12. Calculation

The test was calculated as described in the ASTM method. A specific gravity of 2.79 was used.

Consolidation Tests (ASTM D2435-90)

1. Scope

This test covers procedures for determining the magnitude and rate of consolidation of phosphorus laden sludge when it is restrained laterally and drained axially while subjected to incrementally applied controlled-stress loading.

1.1 *Test Method B* - Time deformation readings were taken on all load increments. Successive load increments were applied after less than 0.0003 inches of deformation occurred over 1 hour.

5. Significance and Use

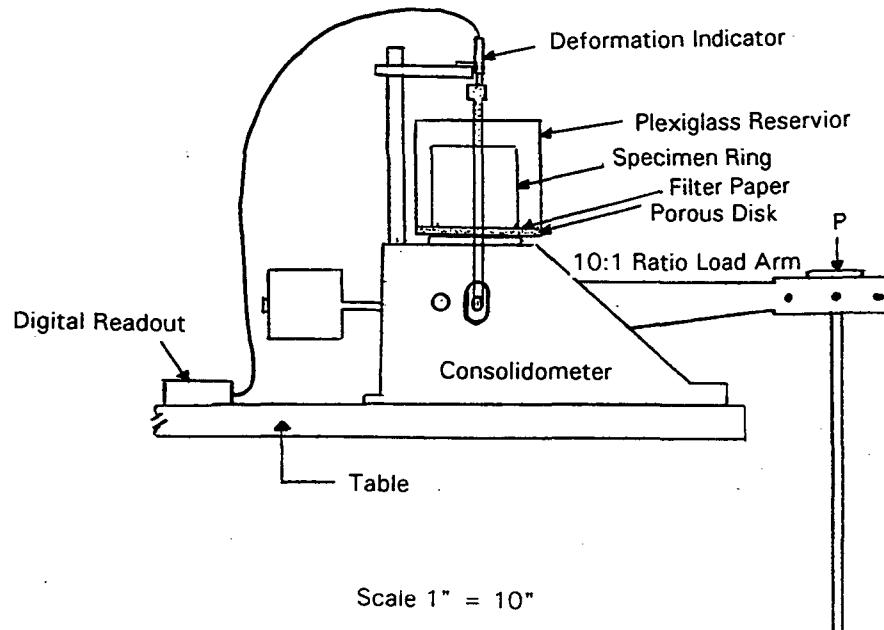
5.2 The test results can be greatly affected by sample disturbance. The phosphorus laden samples were slurry-like in consistency. The samples

were not undisturbed or remolded but placed at the approximate consistency and moisture content as they appeared in the sample jars.

6. Apparatus

- 6.1 *Load Device* - A standard loading device was used.
- 6.2 *Consolidometer* - The consolidometer for conducting the tests on the slurry like samples consists of a 4-inch (I.D.) ring, 4 inches in height.
- 6.3 *Porous Disks* - A porous disk was embedded into the a stainless steel loading disk. The ring was placed over a 5-inch diameter porous disk and inside of 6-inch (I.D.) plex-glass dish with a stainless steel bottom.
- 6.3.1 *Diameter* - The top loading disk was machined to slide into the ring with a very small tolerance (less than the standard). The small tolerance was to reduce the potential for the sludge to escape around the top disk during loading.
- 6.5 *Deformation Indicator* - The deformation was electronically monitored using a Linear Displacement Transducer (accurate to 0.0001 inches) and stored using a data acquisition system on a PC.

Sketch of the Consolidation Setup



9. Specimen Preparation

- 9.1 The specimen was prepared by placing the slurry into the ring at approximately the same consistency and moisture content as was sampled. No additional vibration, stirring or distortion was conducted.
- 9.7 An initial weight of the sample was not obtained.
- 9.10 An initial moisture content was obtained on a separate portion of the sample from the same sample jar.

11. Procedure

- 11.1 The sample dish was filled with water after placing the sample in the ring.
- 11.5.2 Test Method B was used. The height of each sample was recorded at the following intervals ninety (90) 10 second readings, ninety (90) 1 minute readings, ninety (90) 10 minute readings, ninety (90) 15 minute readings, ninety (90) 30 minute readings and any additional readings at 1 hour intervals.
- 11.6 Moisture contents were obtained on a portion of the sample tested after completion of the test.

12. Calculation

The void ratio for each test was calculated based on the after test moisture content. In determining the void ratio, saturation (S) was assumed to be 100 percent and a value of 1 was used for "S." This allowed the initial void ratio to be determined using the following equation:

$$Y_d = \frac{G_s Y_w}{1+e}$$

Thus:

$$e = \left(\frac{G_s Y_w}{Y} \right) - 1$$

All other parameters such as dry density and moisture content were determined from standard laboratory methods.

DISCUSSION OF TEST RESULTS

Moisture Contents

Thirty-two (32) moisture content tests were conducted on Ponds 8E, 11S, 12S, and 13S samples at the moisture content as sampled and twelve (12) moisture contents conducted on samples after consolidation, and gradation/hydrometer tests.

Initial moisture content values ranged from 83 to 368 percent of the dry weight uncorrected and 81 to 346 percent corrected for P_4 content. The accuracy of the corrected values is dependant upon the accuracy of the P_4 content.

The results of the tests are listed in Table 1 and the data calculation sheet is found in Appendix A.

Atterberg Limits

The results of the tests indicate liquid limit values ranging from 61 to 158 percent uncorrected and 56 to 158 percent corrected for P_4 content. The plastic limit tests indicate values of 37 to 76 percent uncorrected and 13 to 69 percent corrected for P_4 content. The plasticity index of the uncorrected values ranges from 24 to 114 percent and from 16 to 115 percent corrected for P_4 content. The values indicate classifications varying from a lean clay (CL) to an elastic silt (MH) to a fat clay (CH) with the predominant soil type being an elastic silt (MH) according to ASTM D2487. The accuracy of the corrected values is dependant upon the accuracy of the P_4 content.

The Atterberg Limit tests were conducted inside of a glove box with an oxygen free atmosphere. The samples were obtained at relatively high moisture contents that required drying. Initially, drying was attempted by air circulation with the fan inside the glove box. Several samples were placed in open dishes, but drying was slow. It was observed during pressing, rolling, and mixing the samples that the samples appeared to take on additional moisture. Samples were then dried using blotting techniques with paper towels.

The neoprene and silver lining gloves resulted in a loss of dexterity for conducting the plastic limit tests. The difficulty involved rolling the thread down to $\frac{1}{8}$ inch diameter. There was an obvious loss of accuracy in conducting this portion of the test. The tests were all conducted by the same individual, which would provide consistency.

The results of the tests are listed in Table 1 and the data-calculation sheet shown in Appendix B.

It should be noted that the sample from Pond 13S BH-2 at 15.8 feet could not be performed due to the high moisture content. After blotting with paper towels, the amount of solids which remained was insufficient to conduct the test.

Specific Gravity

Specific gravity tests were conducted on six samples of the sludge. The values range from 2.67 to 2.91 with an average value of 2.79.

A value of 2.79 was used in calculations for other test results. The results of the test are listed in Table 1 and the data-calculation sheet in Appendix C.

Gradation\Hydrometer

Grain size distribution tests were conducted on 23 samples of the sludge. The samples contained 40 to 100 percent passing the No. 200 sieve. The samples contained 6 to 81 percent clay size particles (<0.005 mm) with an average of 51 percent.

The samples were prepared wet. The dry weight was determined using the moisture content obtained from the same sample jar. Inaccuracies could result from any differences in the moisture content of the test sample and the moisture content sample. Any inaccuracies would probably not be significant.

Results of the tests are shown graphically in Figures 1 through 5 and the data-calculation sheets are included in Appendix D.

Consolidation

We conducted 9 one-dimensional consolidation tests on samples of the sludge. The samples were tested in a modified consolidometer. The tests were loaded at pressures of 25, 50, 100, 250, 500, 1000, 2000 and 4000 psf. Time deformation readings were taken for each increment. The void ratio (e) vs. log of pressure results are shown graphically on Figures 13 through 21. Time consolidation plots for deformation vs. square root of time are shown on Figures 22 through 93 and plots for deformation vs. log of time are shown on Figures 94 through 165. The test data and calculations for the tests are listed in Appendix E.

Initial void ratios varied from 2.54 to 6.87. The void ratio values were calculated based on the final moisture content as opposed to the initial moisture content. The initial moisture content was taken from the same sample jar and final moisture content from the actual sample tested. The final P_4 corrected moisture contents ranged from 63 to 126 percent.

It was observed that the time vs. deformation plots for samples 8E BH-2 at 10.2 feet, 8E BH-3 at 13.5 feet, 12S BH-1 at 13.5 feet, and 13S BH-3 at 14.5 feet experienced sporadic deformations. We feel the sporadic deformation was a result of friction between the loading disk and the consolidometer ring. It was noted that each of the tests were conducted on the same apparatus, except 8E BH-2 at 10.2 feet. The time vs. deformation data for these samples should be interpreted carefully or not used in your analysis. The void ratio vs. pressure plots for the sample should also be interpreted carefully. The electronic equipment

used was calibrated prior to use at the site. In addition, the data logged and visually observed was verified.

APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC.



Jared Hanks, E.I.T.



Reviewed by: G. Wayne Rogers, P.E.

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973376

SUMMARY OF TEST RESULTS



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FMC Pond Sampling

Table 1 - Summary of Laboratory Test Results

Pond No.	Boring No.	Depth (ft.)	Moisture Content (%)	Phosphorous Corrected Moisture Content (%)	Atterberg Limits			Specific Gravity
					Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	
8E	BH-1	4.0	215	215	127	45	82	-
		7.0	233	232	-	-	-	-
		10.0	151	151	-	-	-	-
		13.0	102	89	-	-	-	-
	BH-2	4.2	146	146	114	42	72	-
		7.2	237	237	158	43	115	-
		10.2	166	166	-	-	-	-
		13.2	120	117	-	-	-	-
	BH-3	4.5	162	161	-	-	-	-
		7.5	346	346	-	-	-	2.84
		10.5	97	90	56	36	20	-
		13.5	146	146	-	-	-	-
	BH-4	4.2	107	106	-	-	-	-
		7.2	243	242	-	-	-	-
		10.2	101	100	-	-	-	-
		13.2	102	100	-	-	-	-
		14.0	83	82	-	-	-	-
	BH-5	4.5	263	262	-	-	-	-
		7.5	278	278	-	-	-	-
		10.5	158	158	-	-	-	2.81
		13.5	191	188	100	53	47	-
11S	BH-1	4.5	368	200	-	-	-	-
		7.5	279	187	-	-	-	-
		10.5	180	157	-	-	-	2.79
		13.5	147	129	91	55	36	-

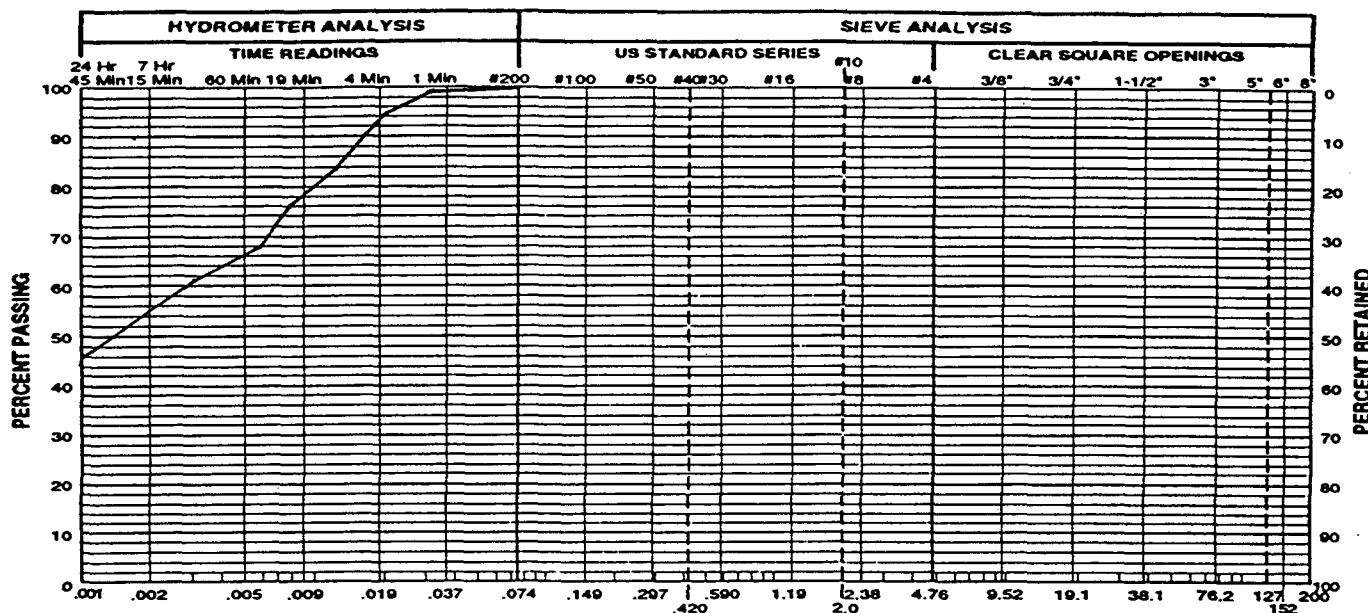


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FMC Pond Sampling
Table 1 - Summary of Laboratory Test Results

Pond No.	Boring No.	Depth (ft.)	Moisture Content (%)	Phosphorous Corrected Moisture Content (%)	Atterberg Limits			Specific Gravity
					Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	
12S	BH-1	7.5	303	241	-	-	-	-
		10.5	151	113	-	-	-	2.91
		13.5	173	134	-	-	-	-
		16.5	160	145	106	69	37	-
	BH-2	7.5	93	76	-	-	-	-
		10.5	277	138	29	13	16	-
		13.5	171	126	-	-	-	-
		16.5	173	143	-	-	-	-
		18.5	162	160	-	-	-	-
	BH-3	7.8	310	82	-	-	-	-
		10.8	168	133	-	-	-	-
		13.8	171	169	110	60	50	-
		16.8	157	127	-	-	-	2.73
		18.5	166	162	-	-	-	-
13S	BH-1	16.0	215	212	-	-	-	-
	BH-2	15.8	289	285	-	-	-	2.67
		17.8	238	238	-	-	-	-
	BH-3	14.5	263	229	-	-	-	-
		17.0	209	194	-	-	-	-

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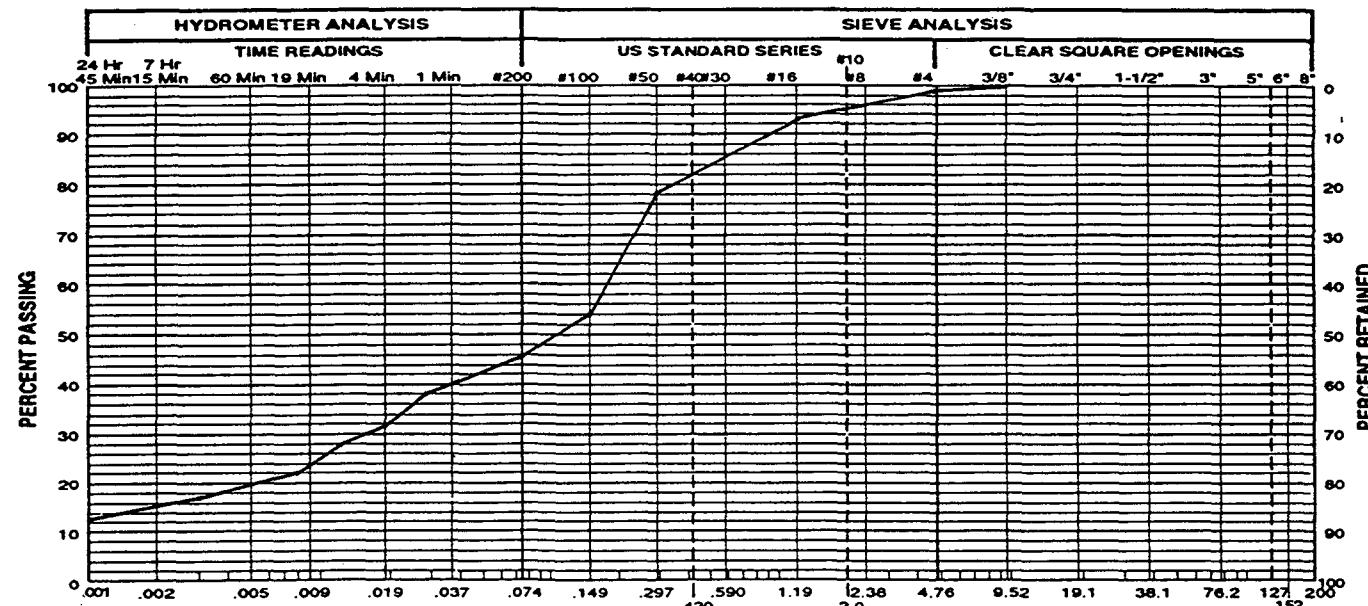
DIAMETER OF PARTICLE IN MILLIMETERS

CLAY TO SILT	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

Gravel 0 % Sand 0 % Silt and Clay 100 %

Liquid Limit - % Plasticity Index - %

Sample of Pond 8E Sludge From BH-1 at 10 feet



DIAMETER OF PARTICLE IN MILLIMETERS

CLAY TO SILT	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

Gravel 1 % Sand 53 % Silt and Clay 46 %

Liquid Limit - % Plasticity Index - %

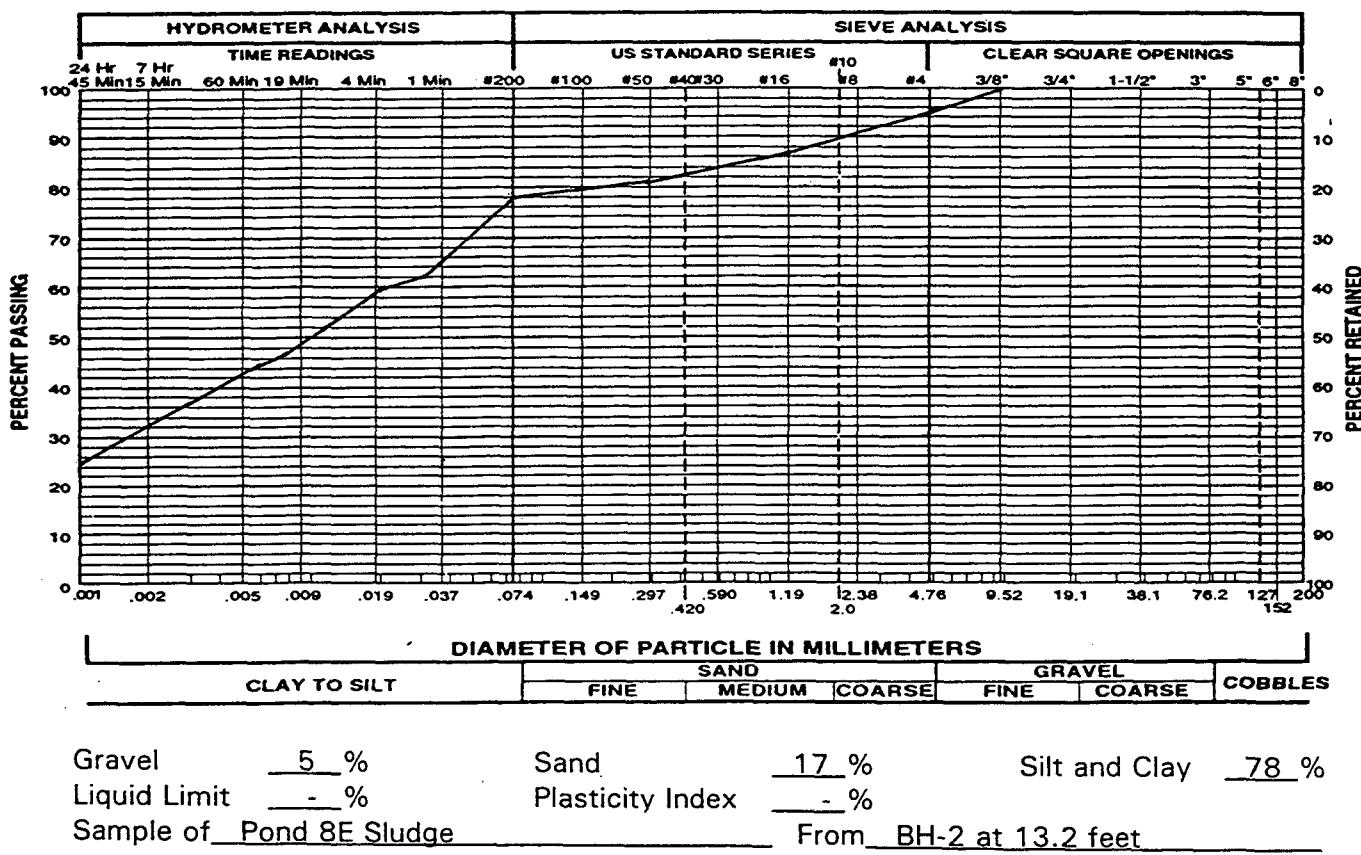
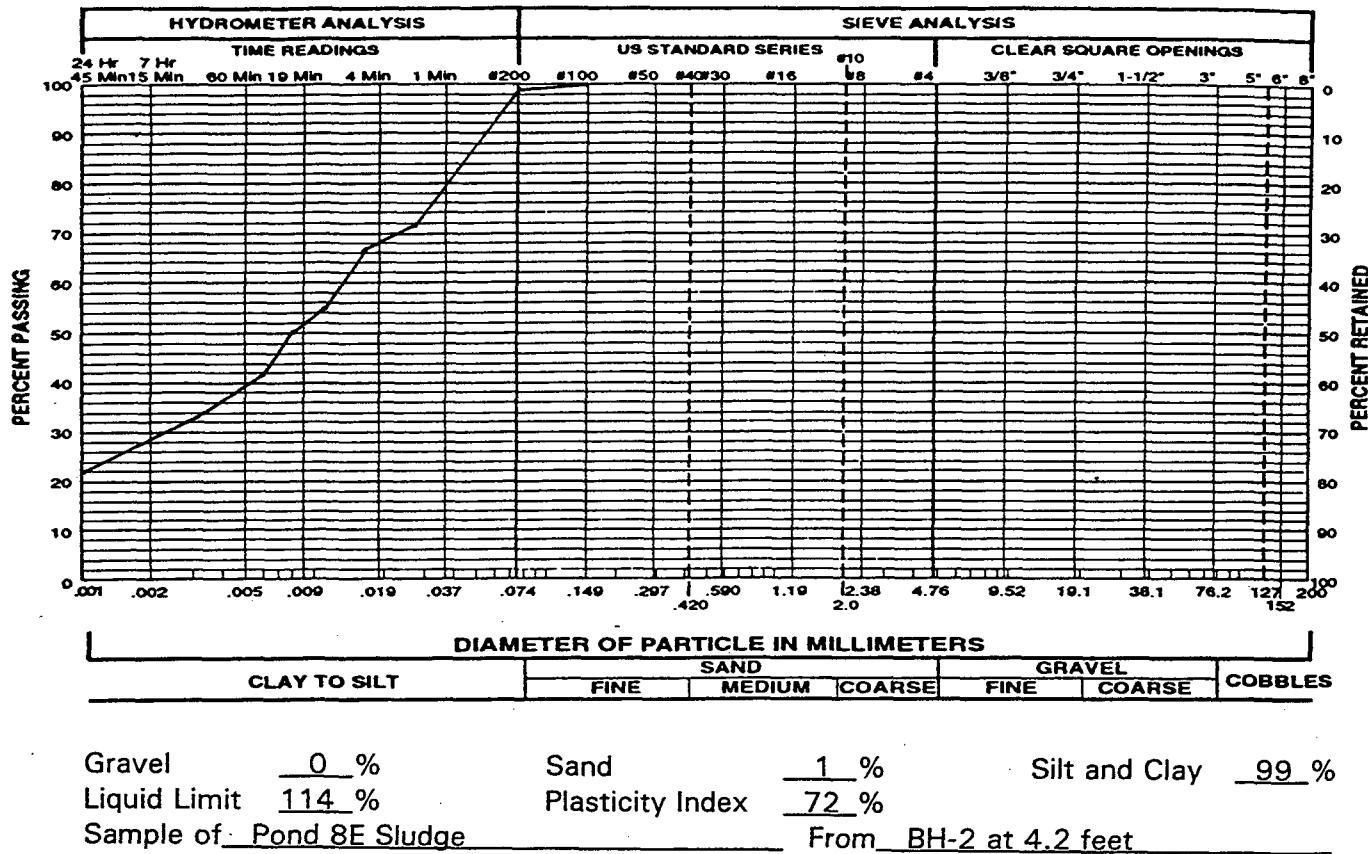
Sample of Pond 8E Sludge From BH-1 at 13 feet

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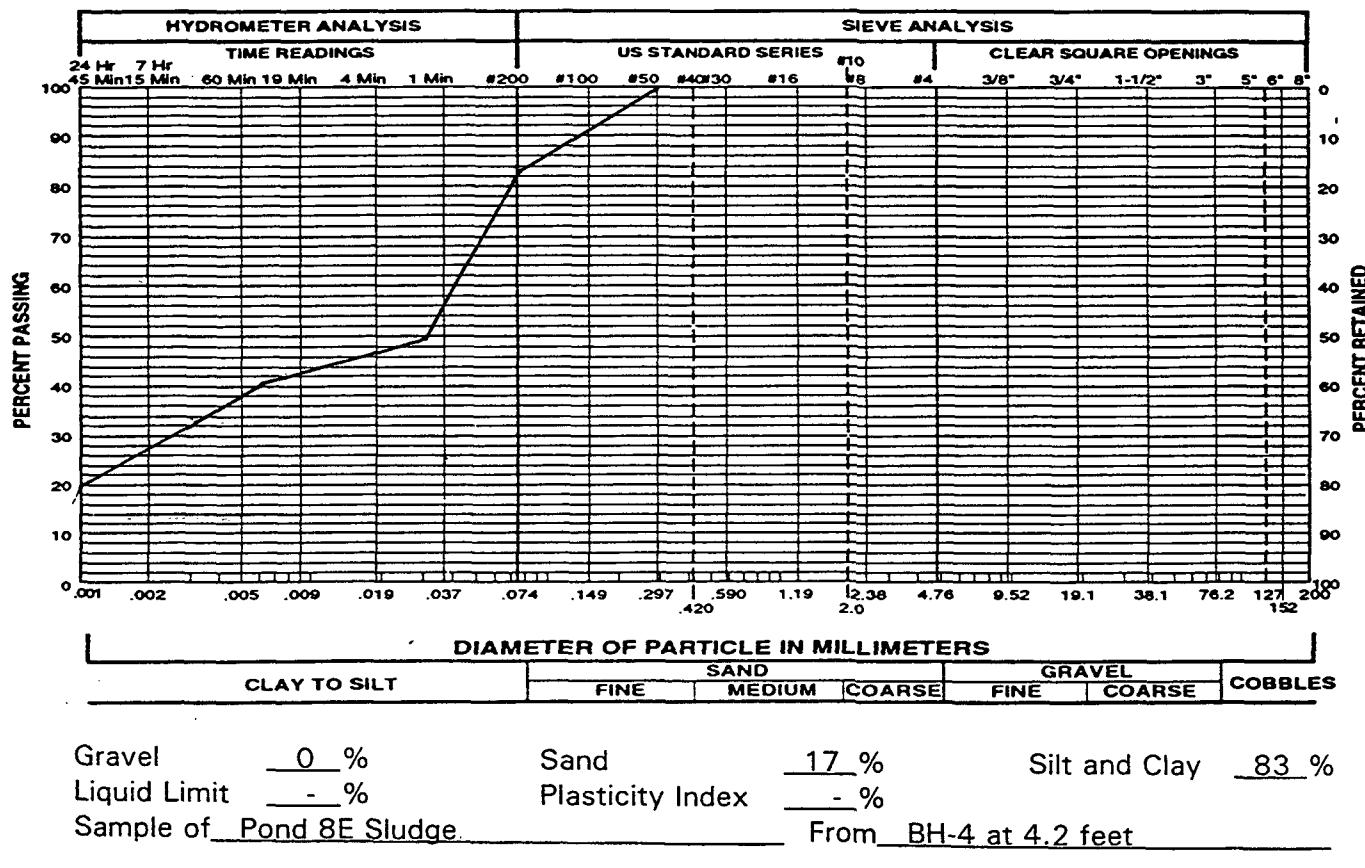
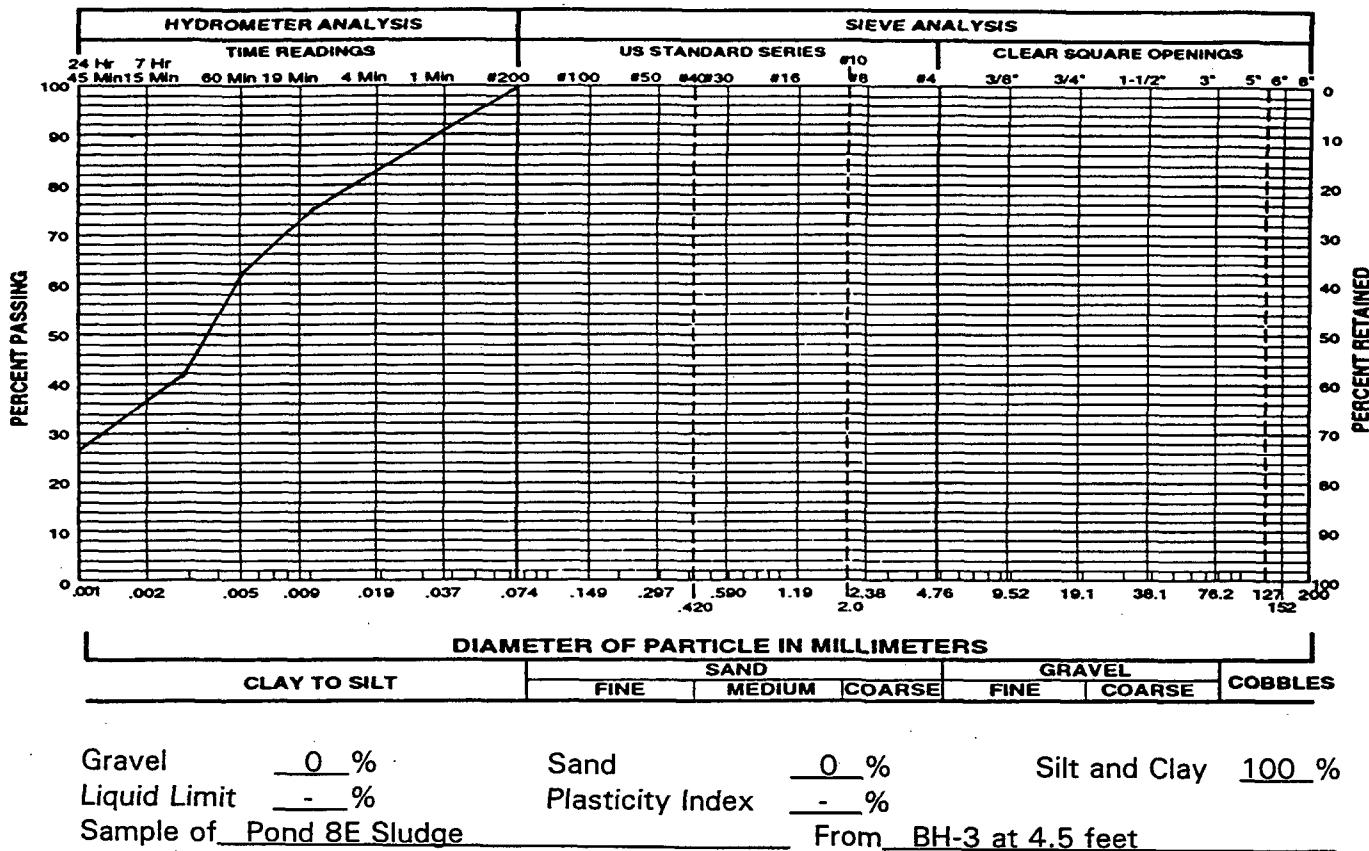
GRADATION TEST RESULTS

Figure 1

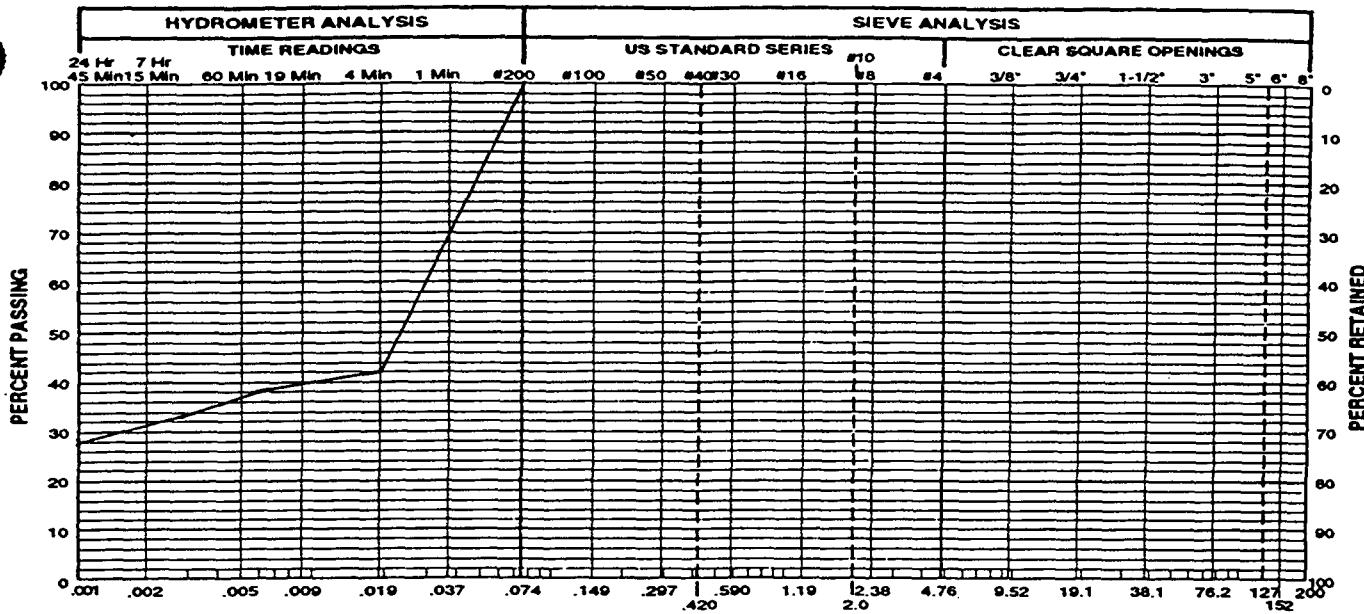
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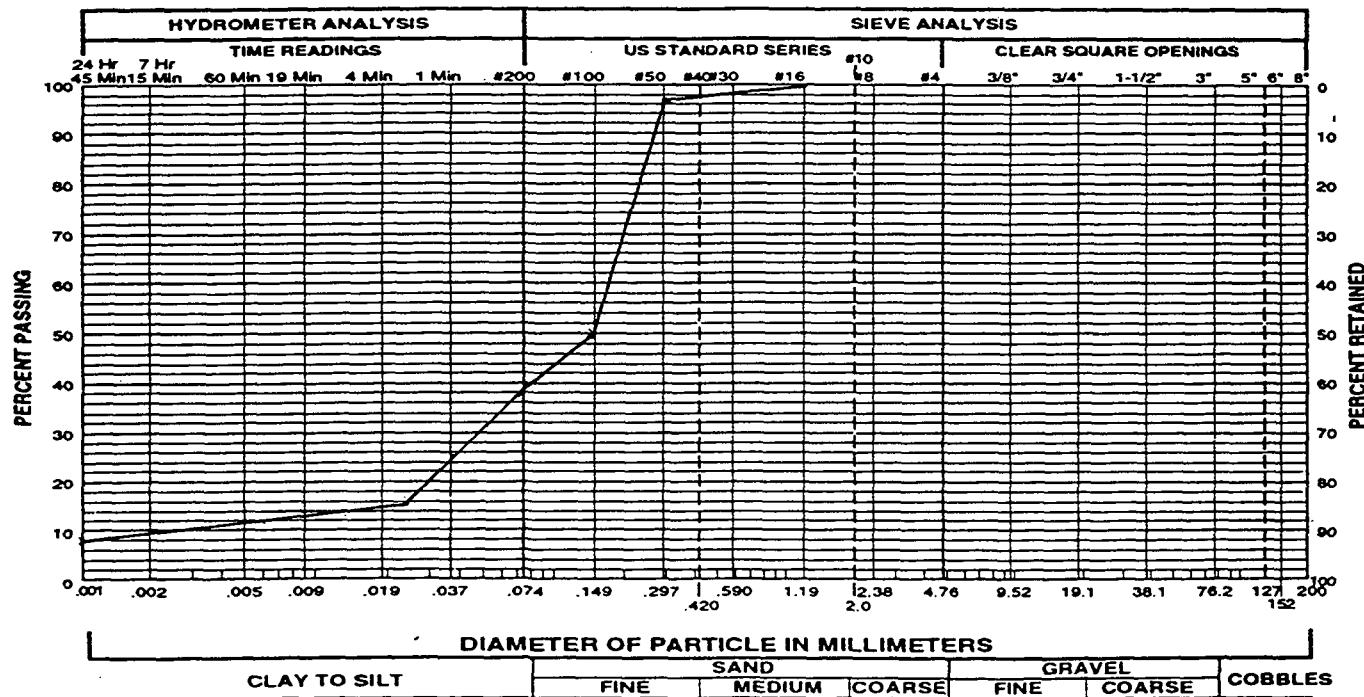
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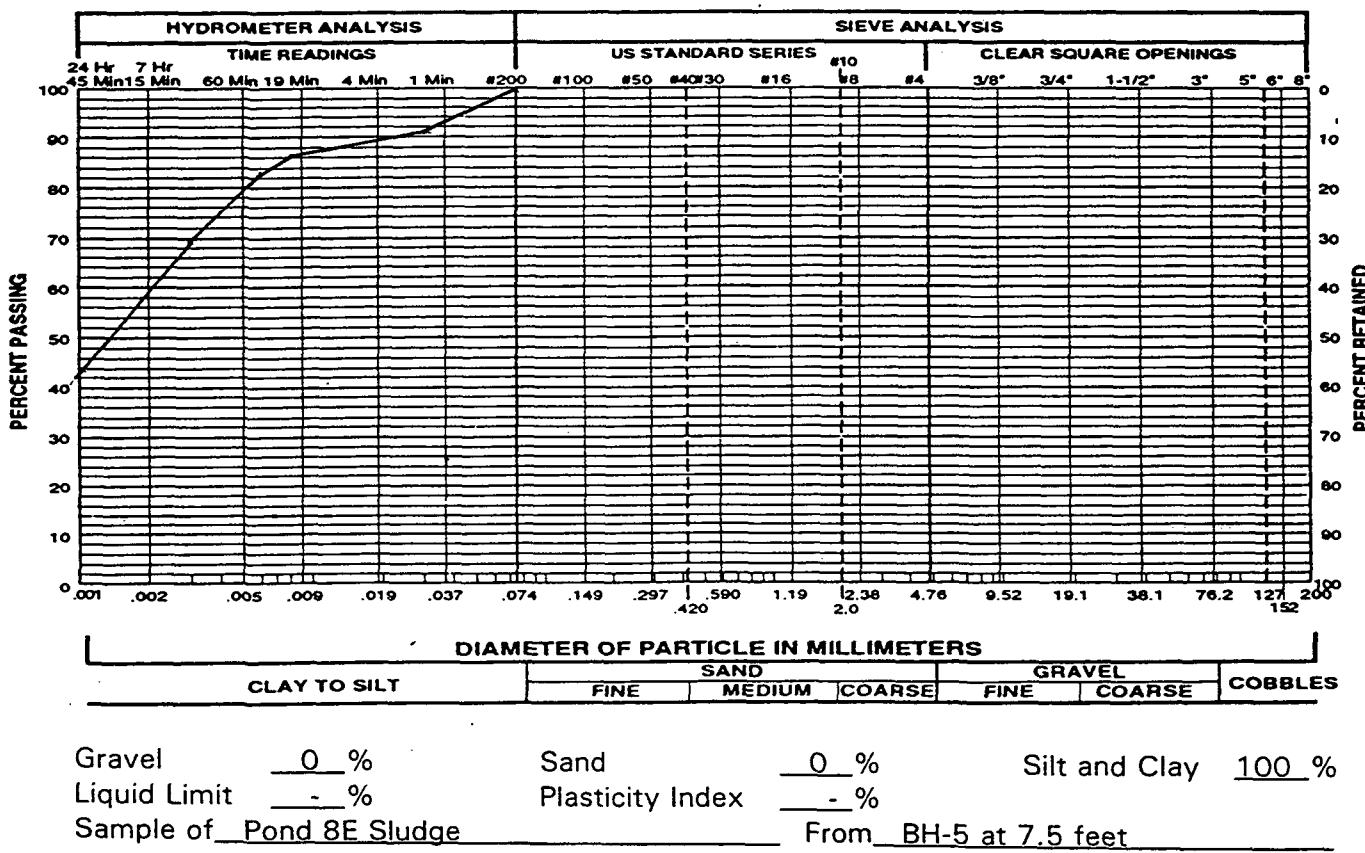
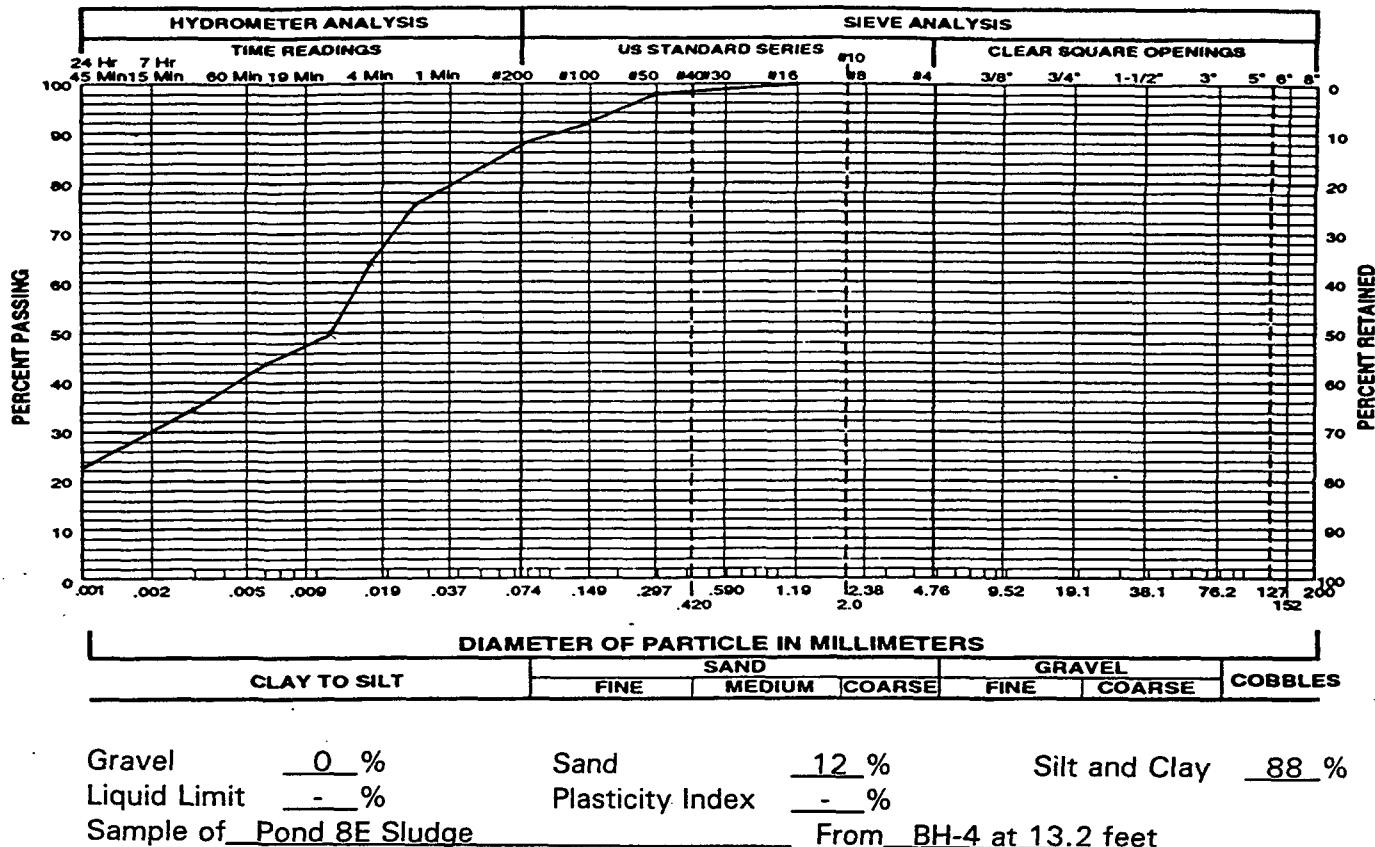


Gravel 0 % Sand 0 % Silt and Clay 100 %
 Liquid Limit - % Plasticity Index - %
 Sample of Pond 8E Sludge From BH-4 at 7.2 feet



Gravel 0 % Sand 61 % Silt and Clay 39 %
Liquid Limit - % Plasticity Index - %
Sample of Pond 8E Sludge From BH-4 at 10.2 feet

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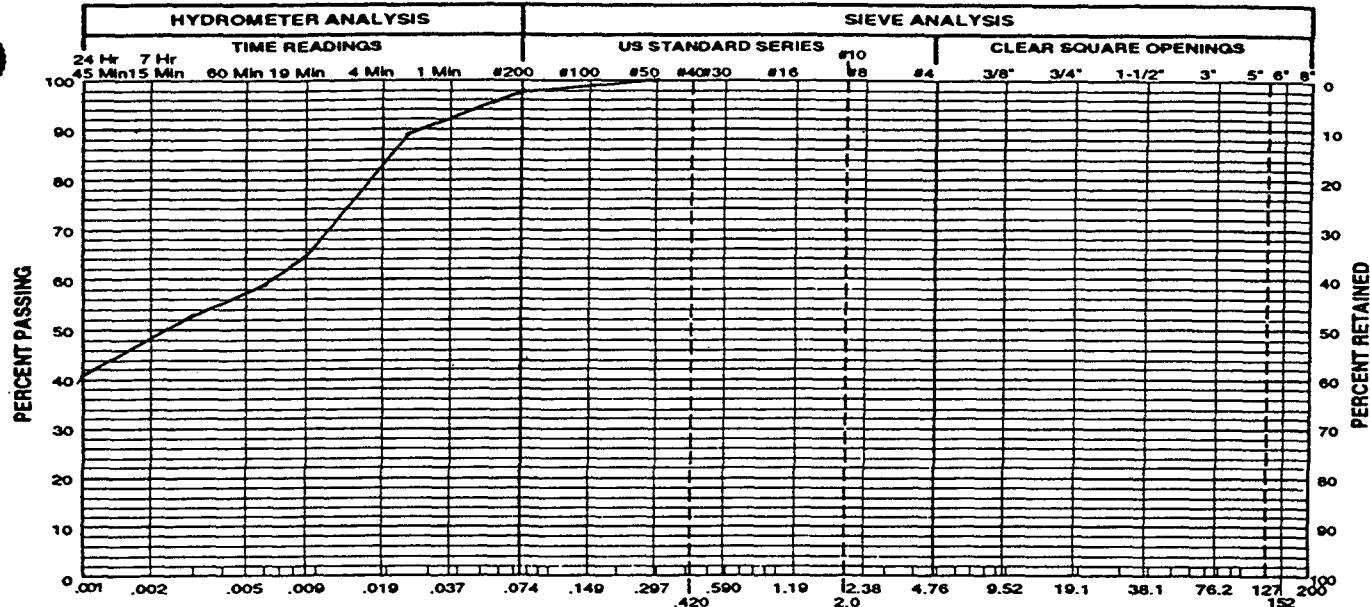


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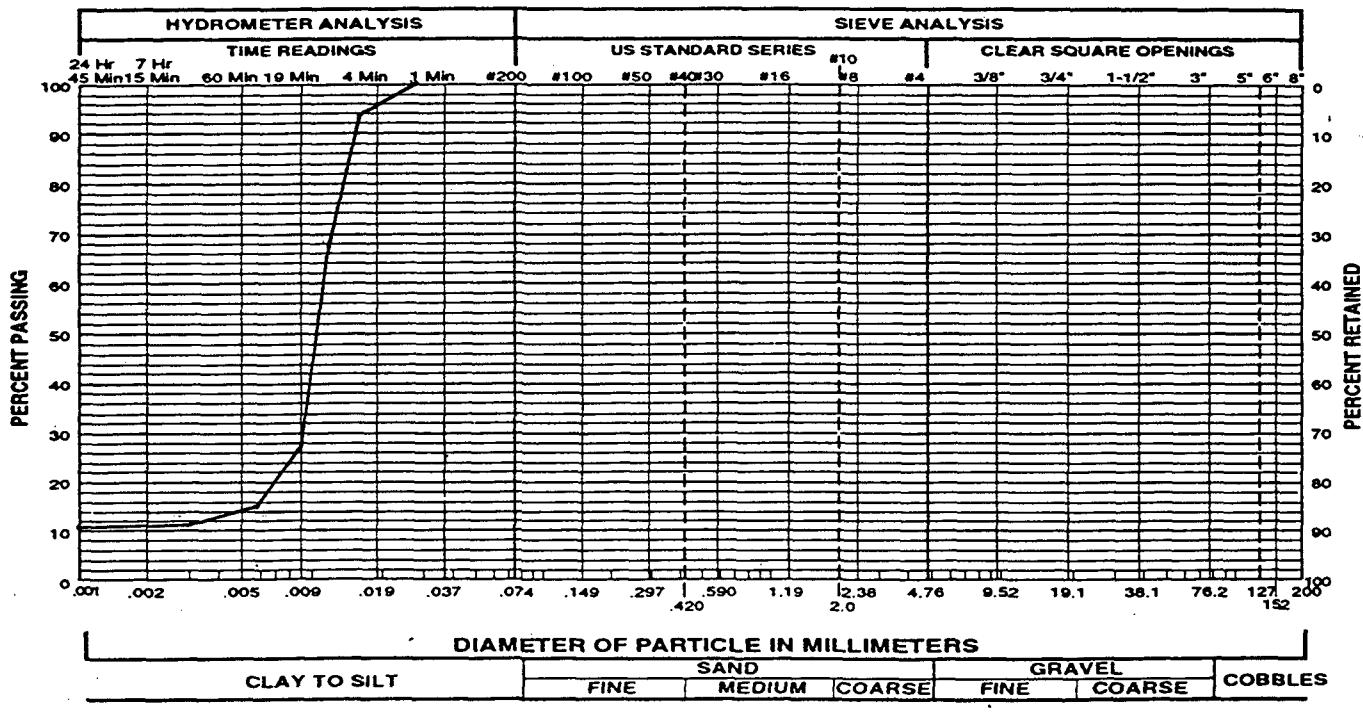
GRADATION TEST RESULTS

Figure 5

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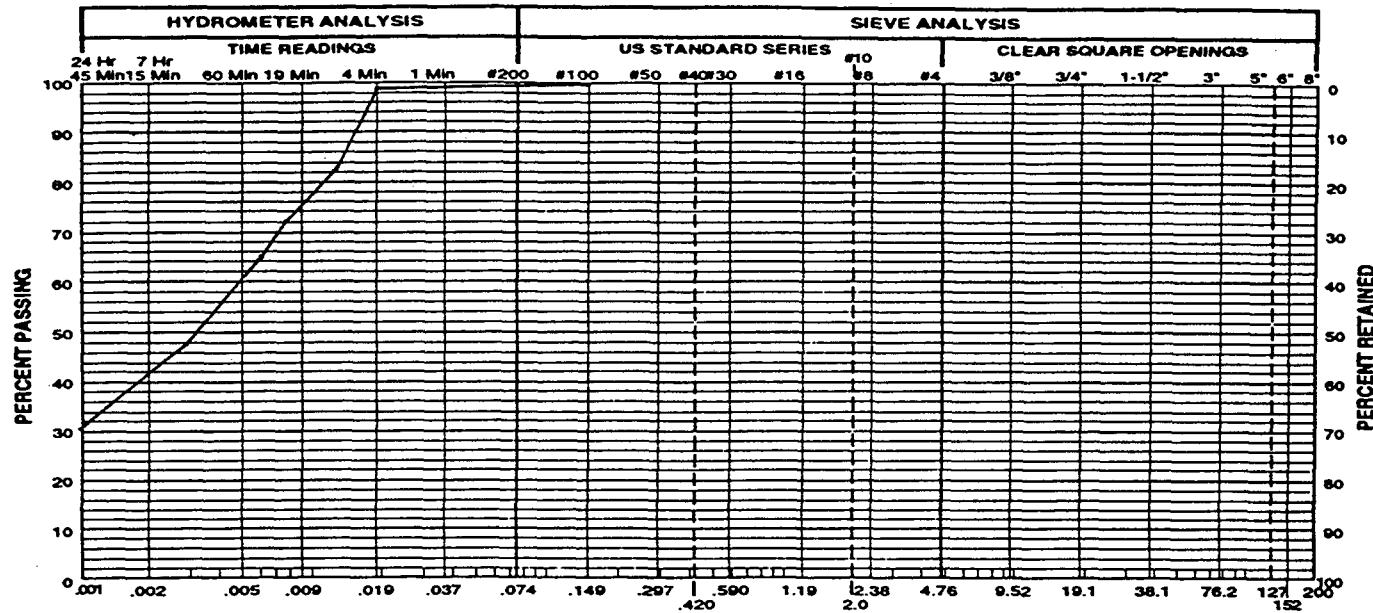


Gravel 0 % Sand 2 % Silt and Clay 98 %
Liquid Limit - % Plasticity Index - %
Sample of Pond 11S Sludge From BH-1 at 4.5 feet



Gravel 0 % Sand 0 % Silt and Clay 100 %
Liquid Limit - % Plasticity Index - %
Sample of Pond 11S Sludge From BH-1 at 10.5 feet

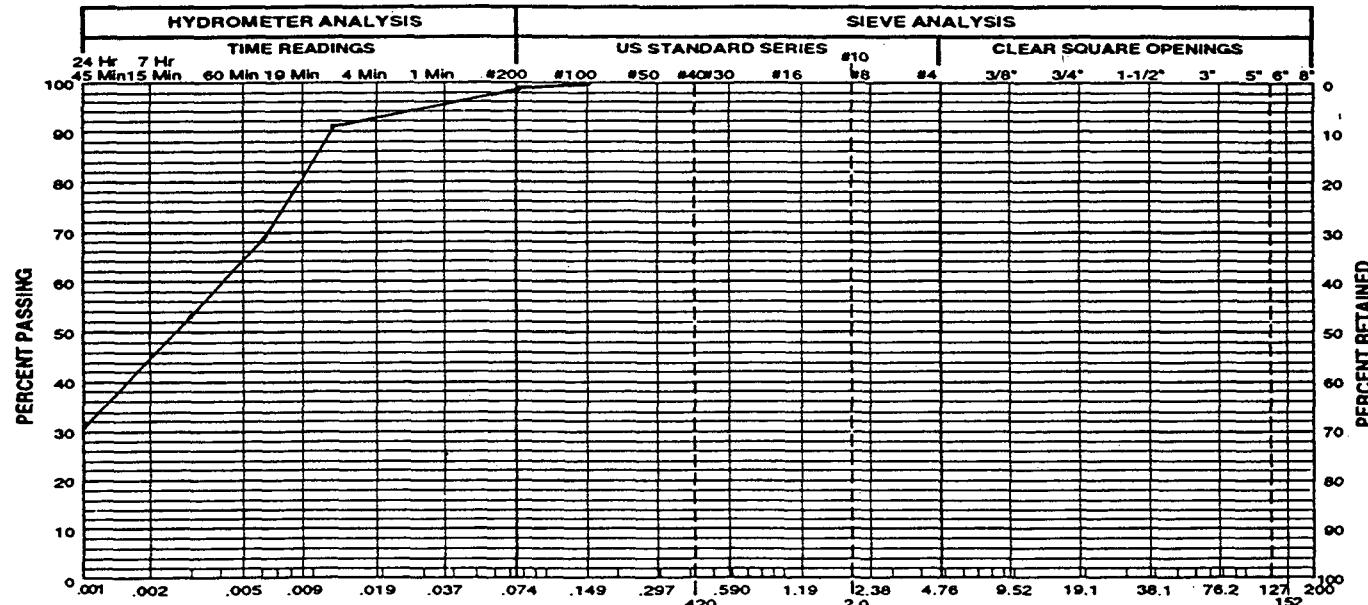
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DIAMETER OF PARTICLE IN MILLIMETERS

CLAY TO SILT	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

Gravel 0 % Sand 1 % Silt and Clay 99 %
 Liquid Limit 91 % Plasticity Index 36 %
 Sample of Pond 11S Sludge From BH-1 at 13.5 feet

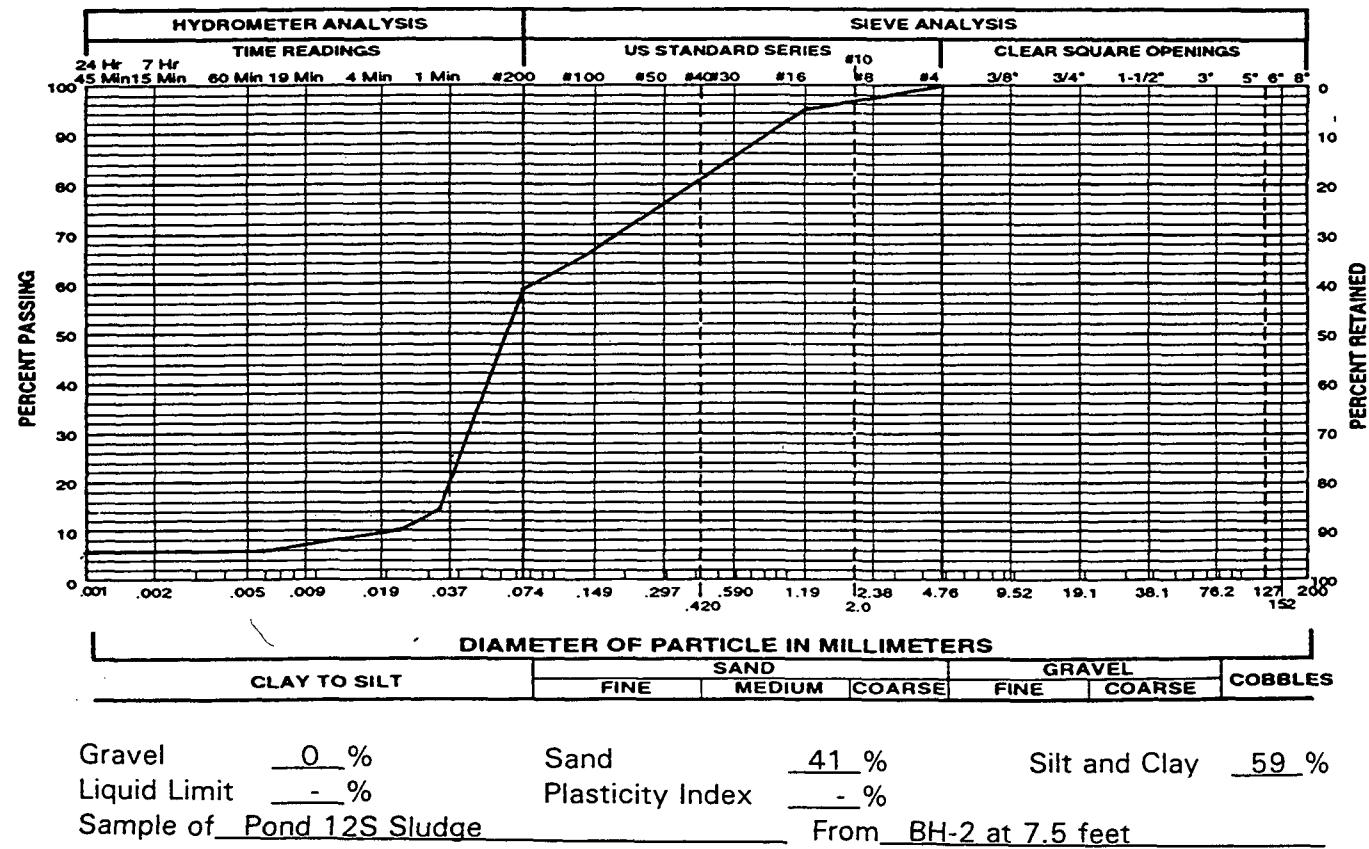
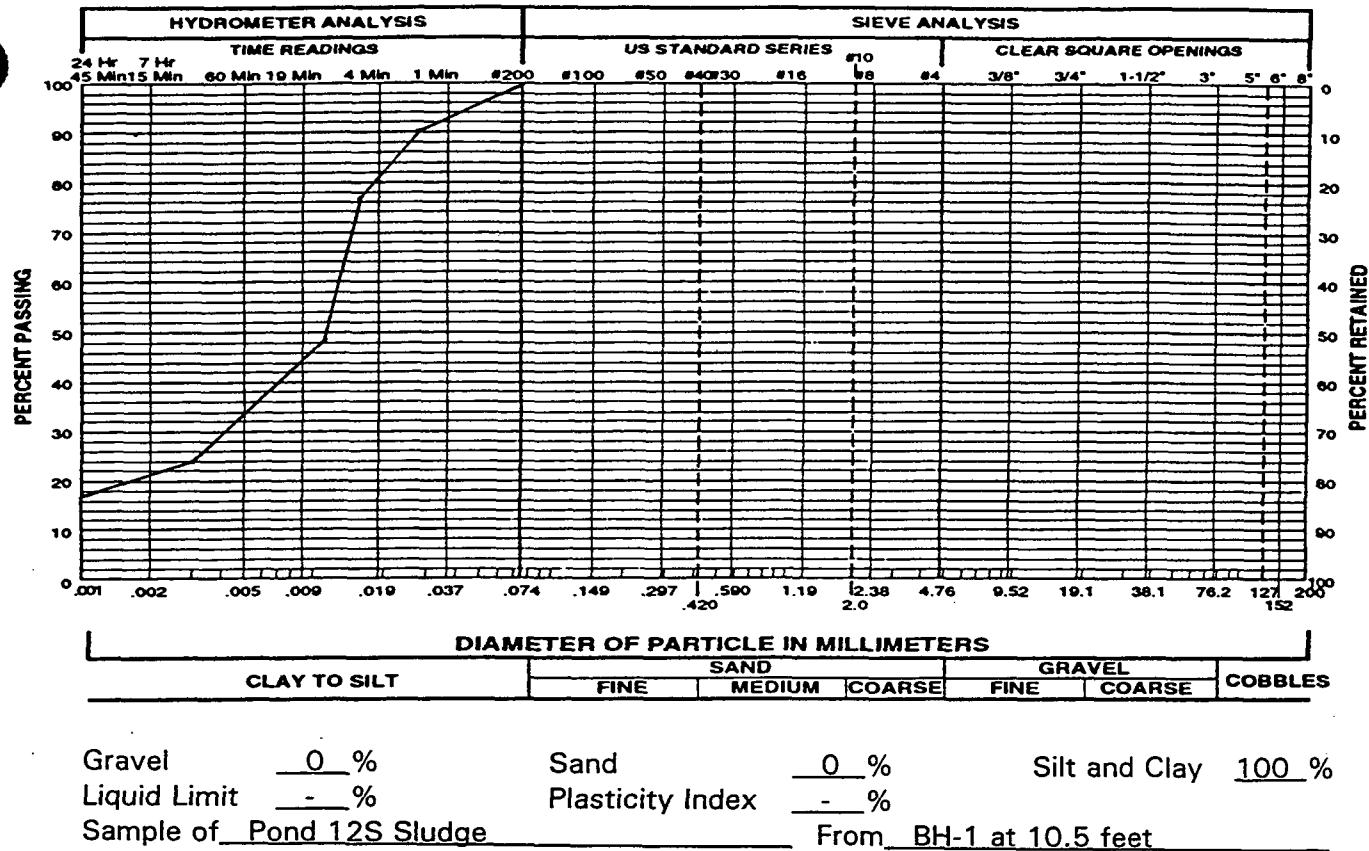


DIAMETER OF PARTICLE IN MILLIMETERS

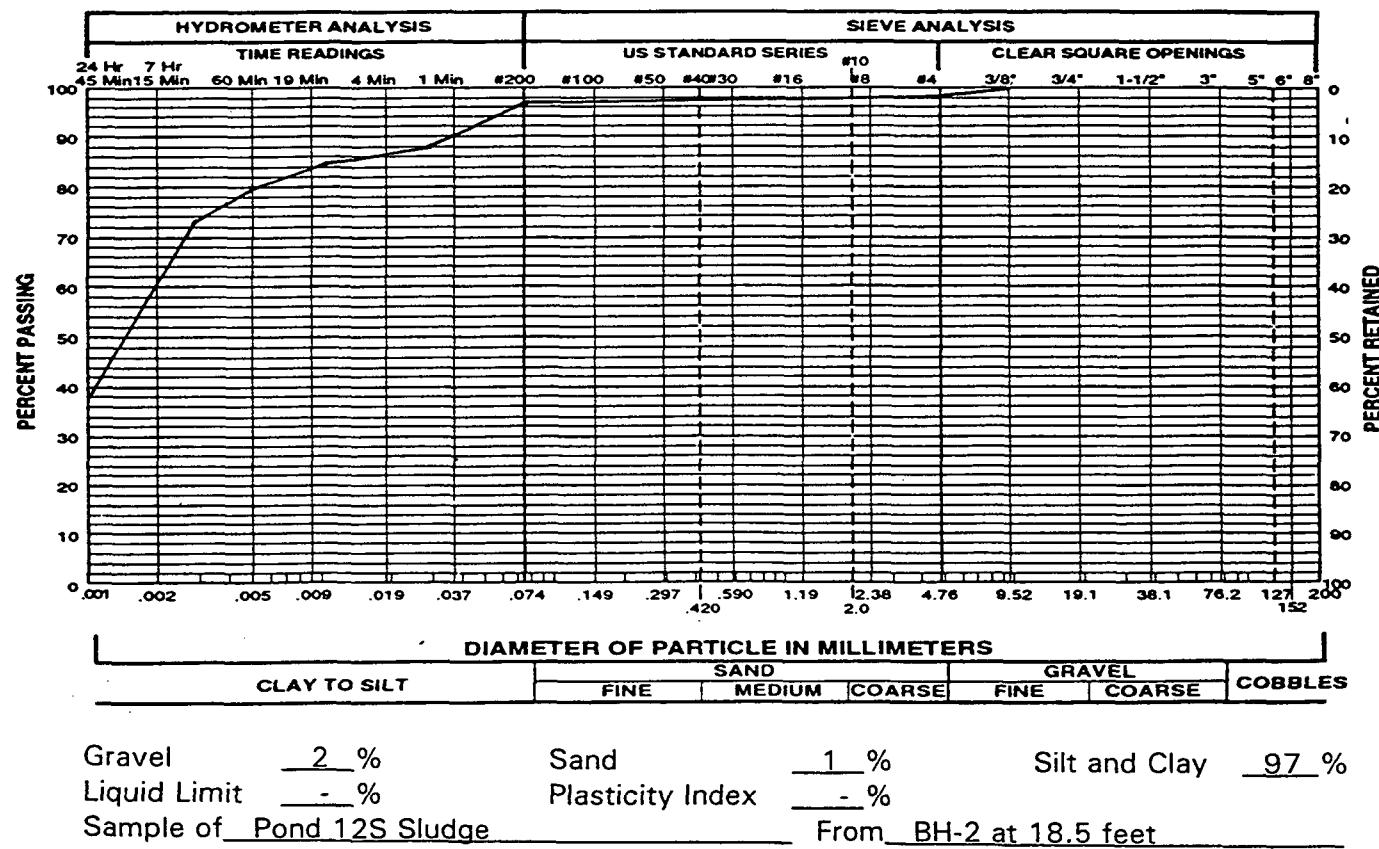
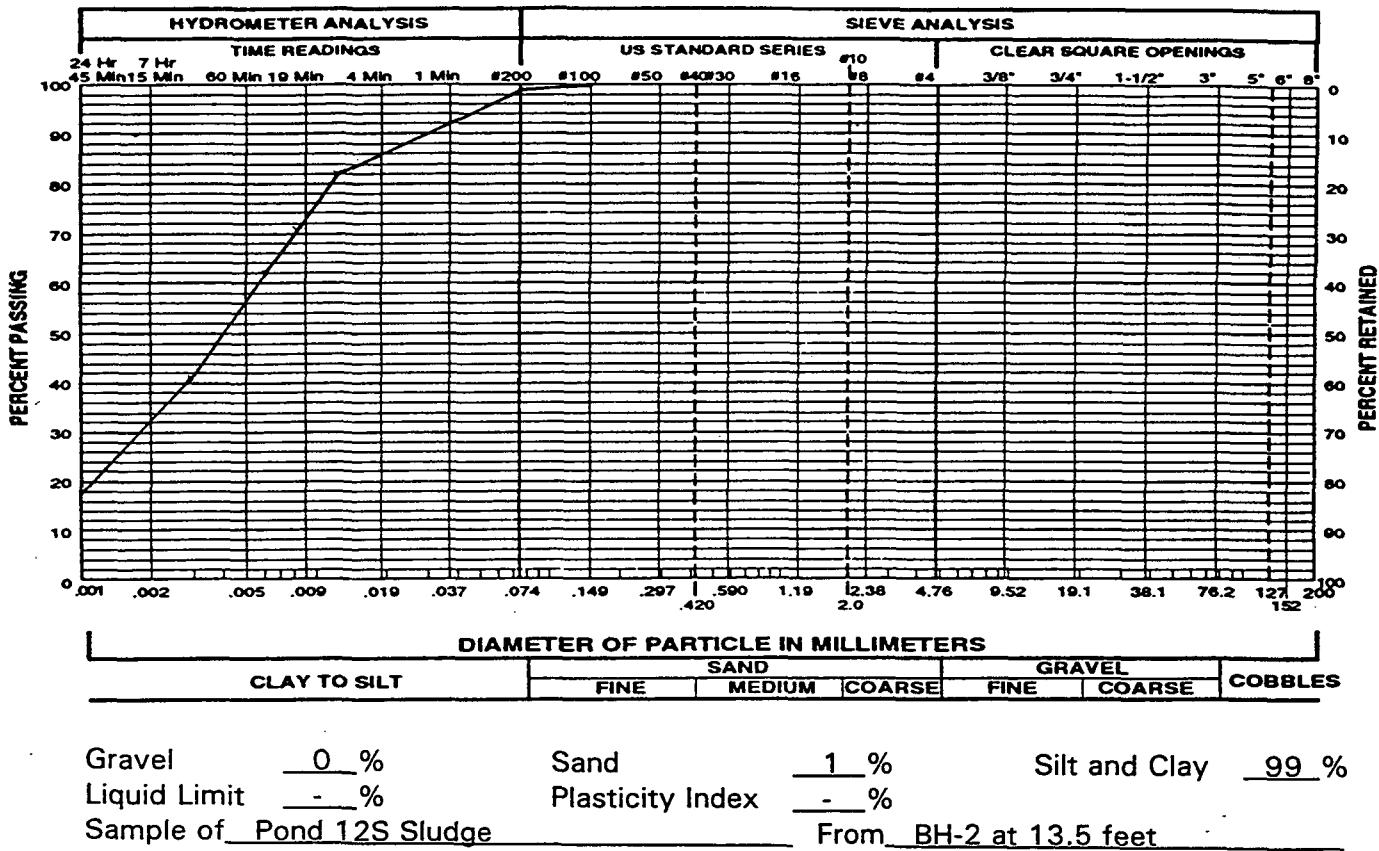
CLAY TO SILT	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

Gravel 0 % Sand 1 % Silt and Clay 99 %
 Liquid Limit - % Plasticity Index - %
 Sample of Pond 12S Sludge From BH-1 at 7.5 feet

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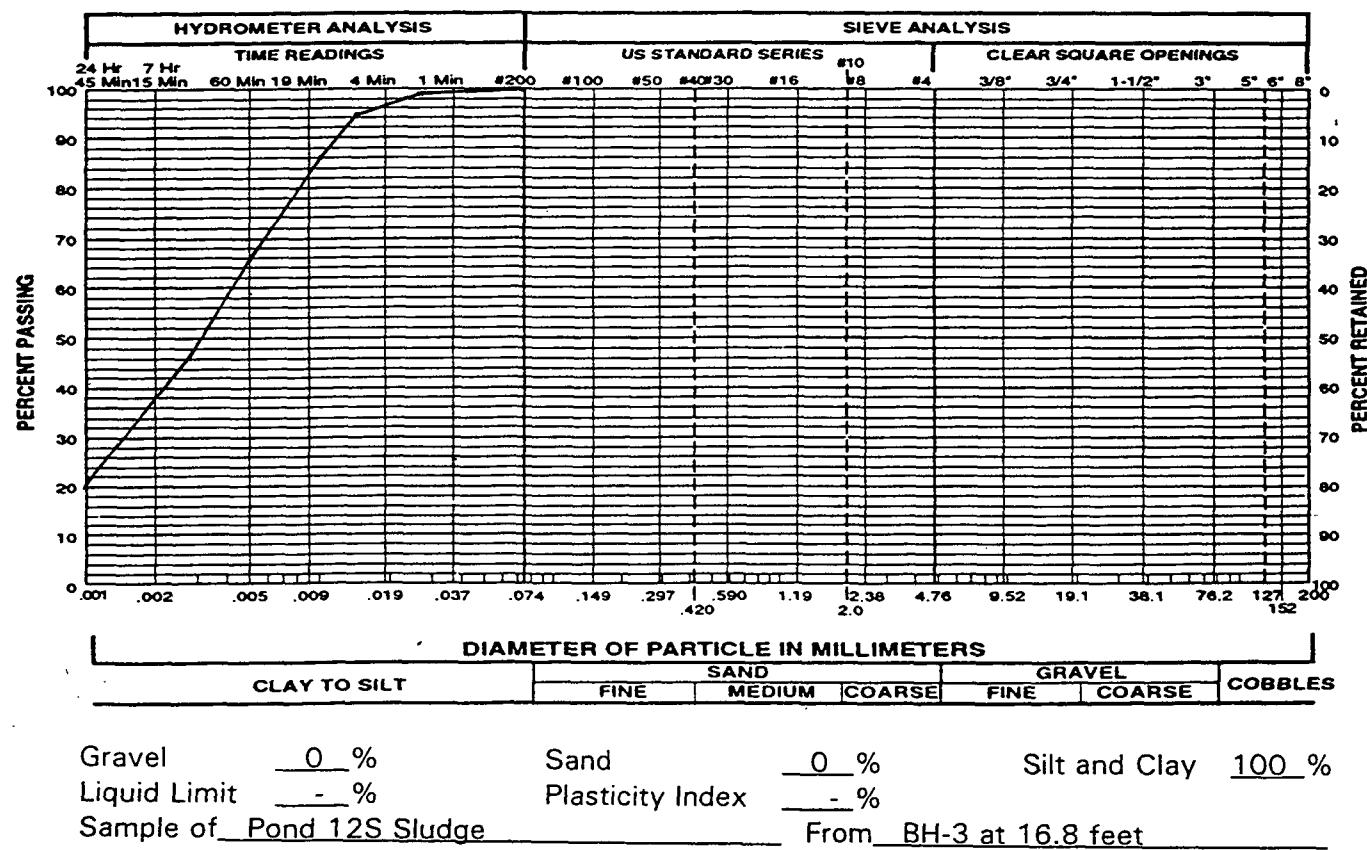
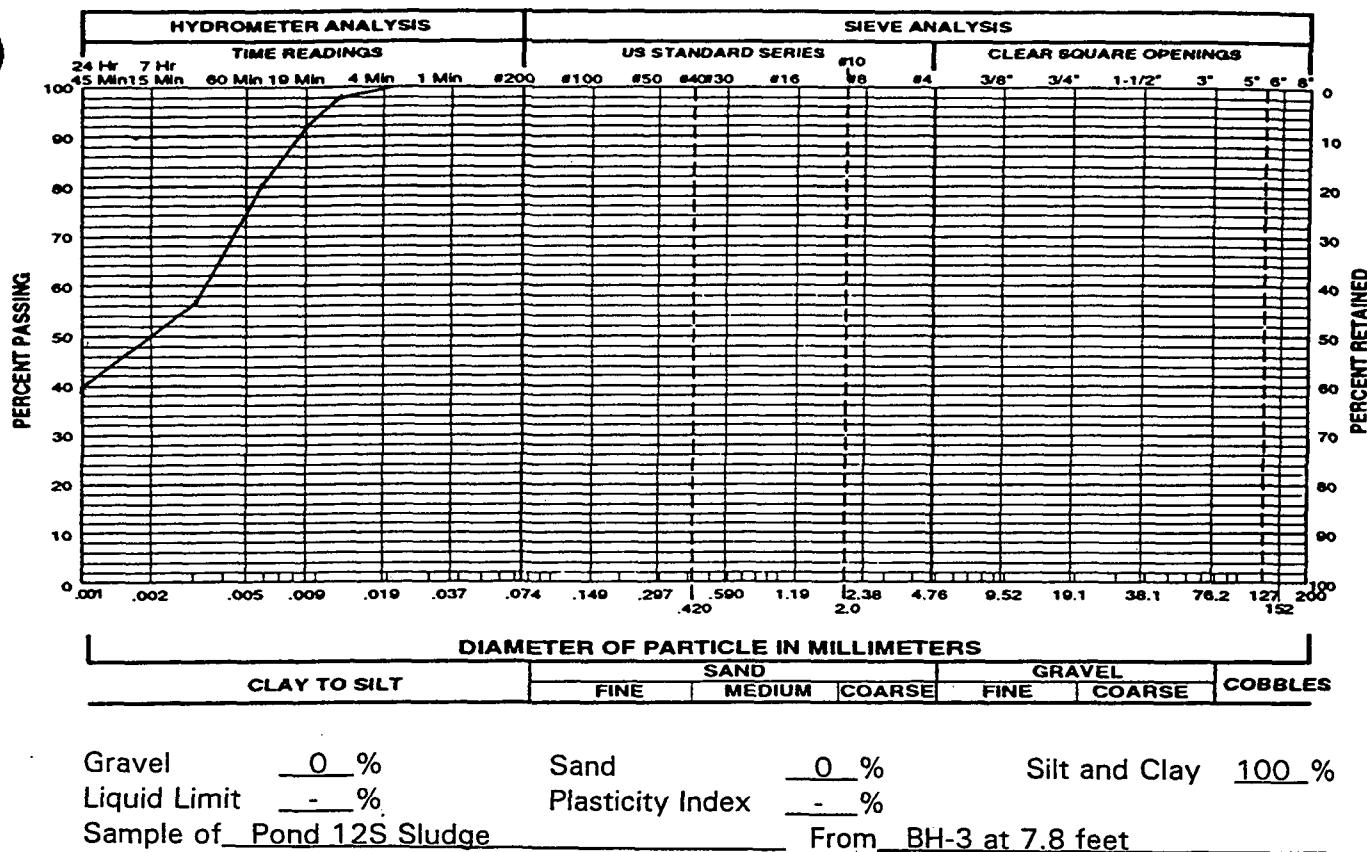


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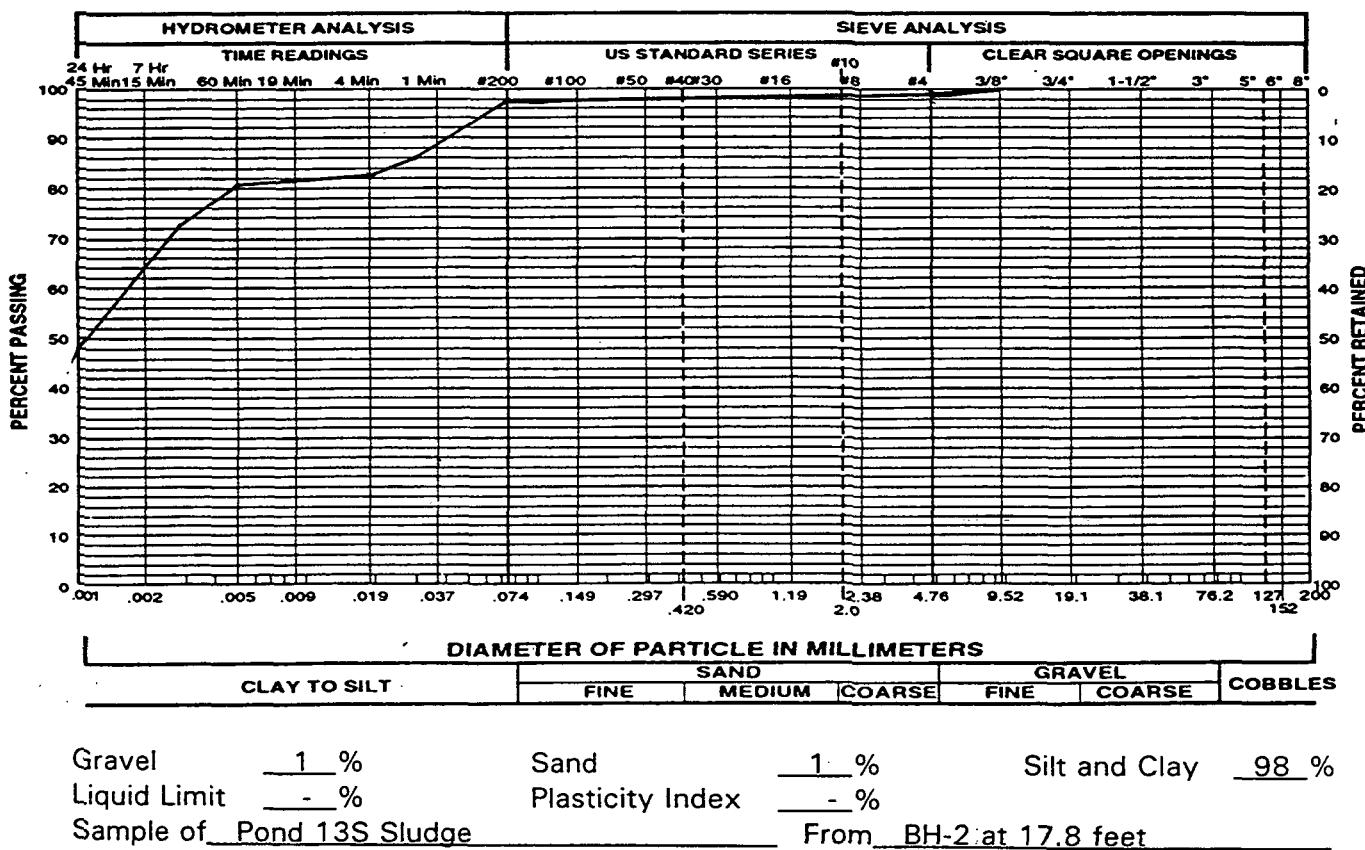
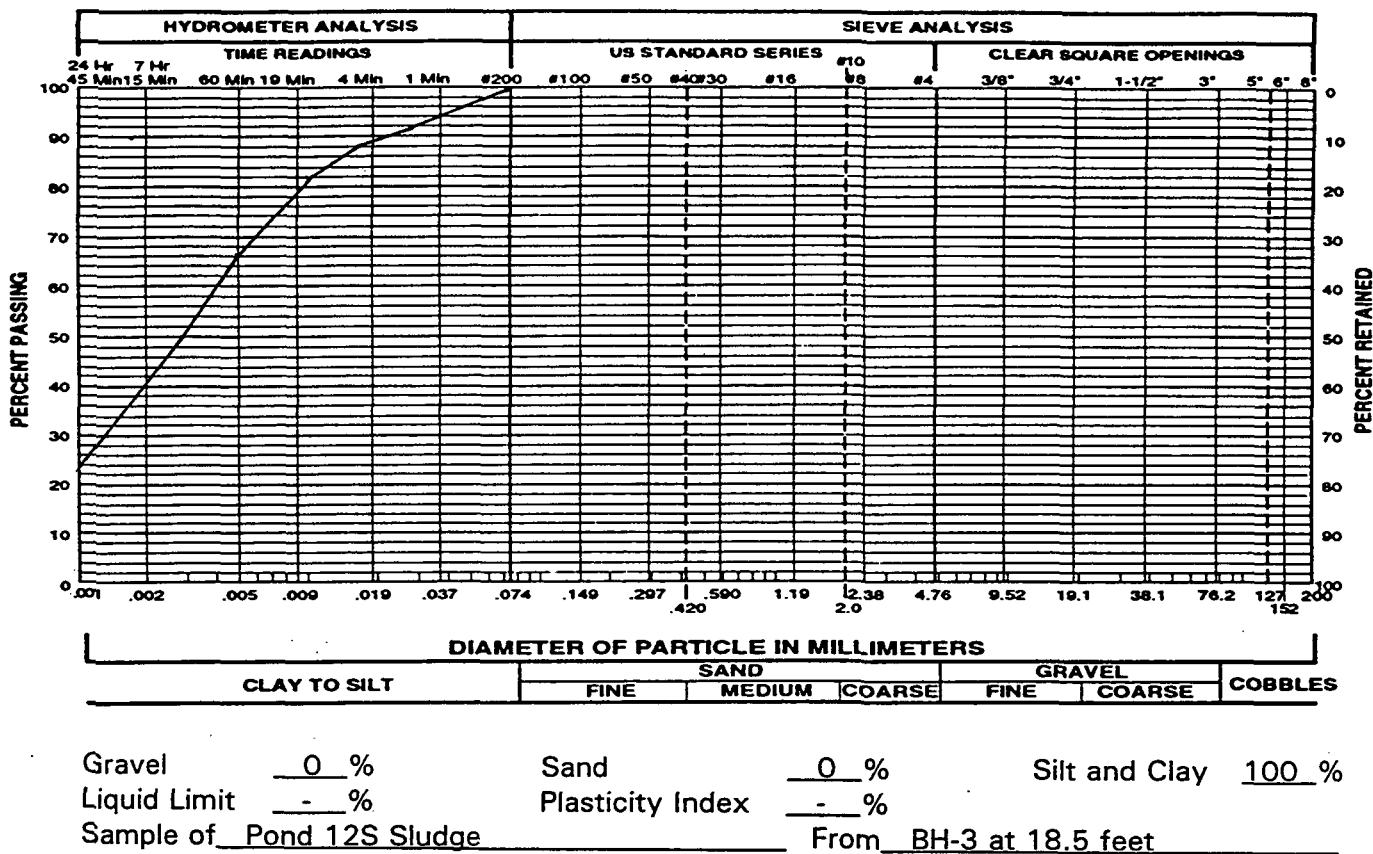
GRADATION TEST RESULTS

Figure 9

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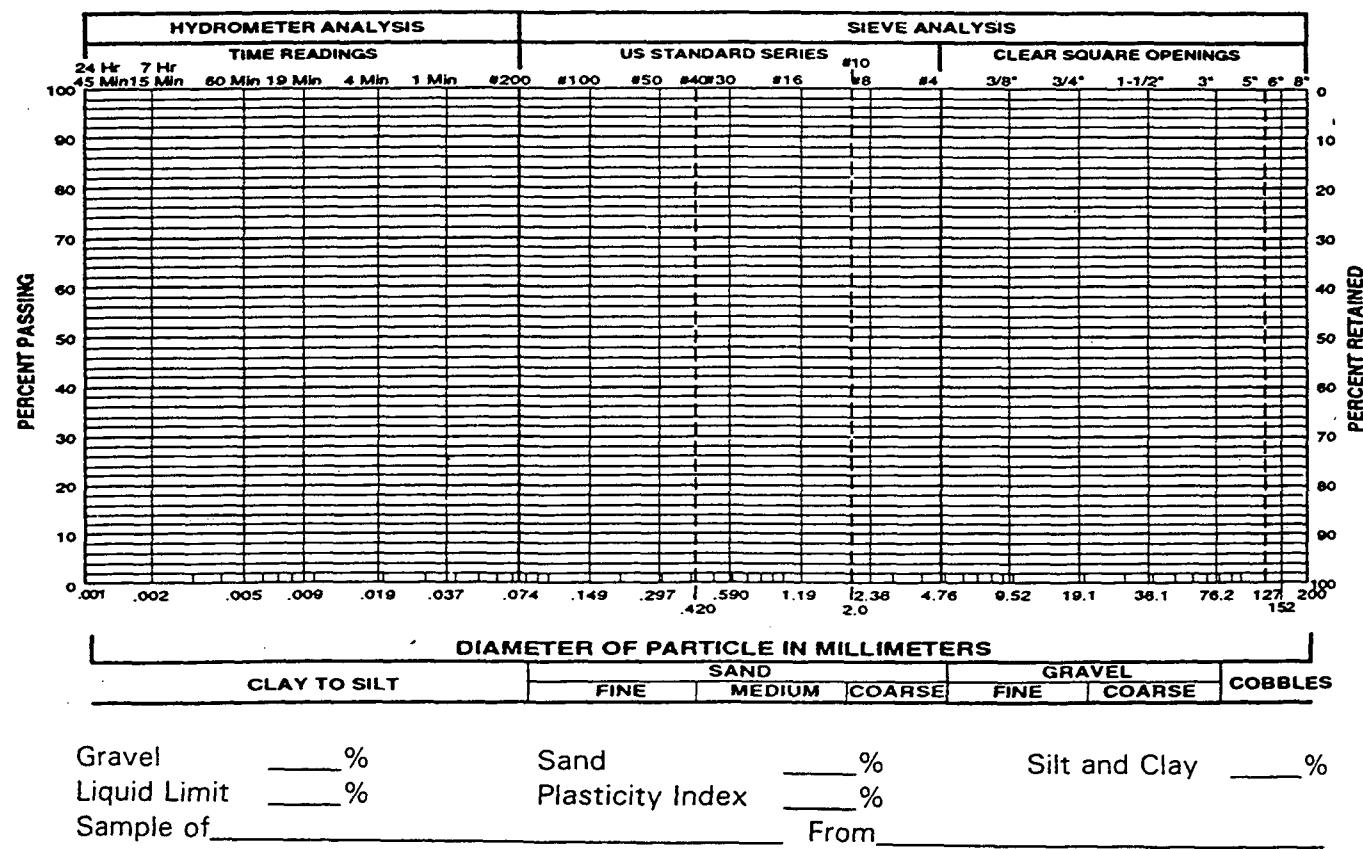
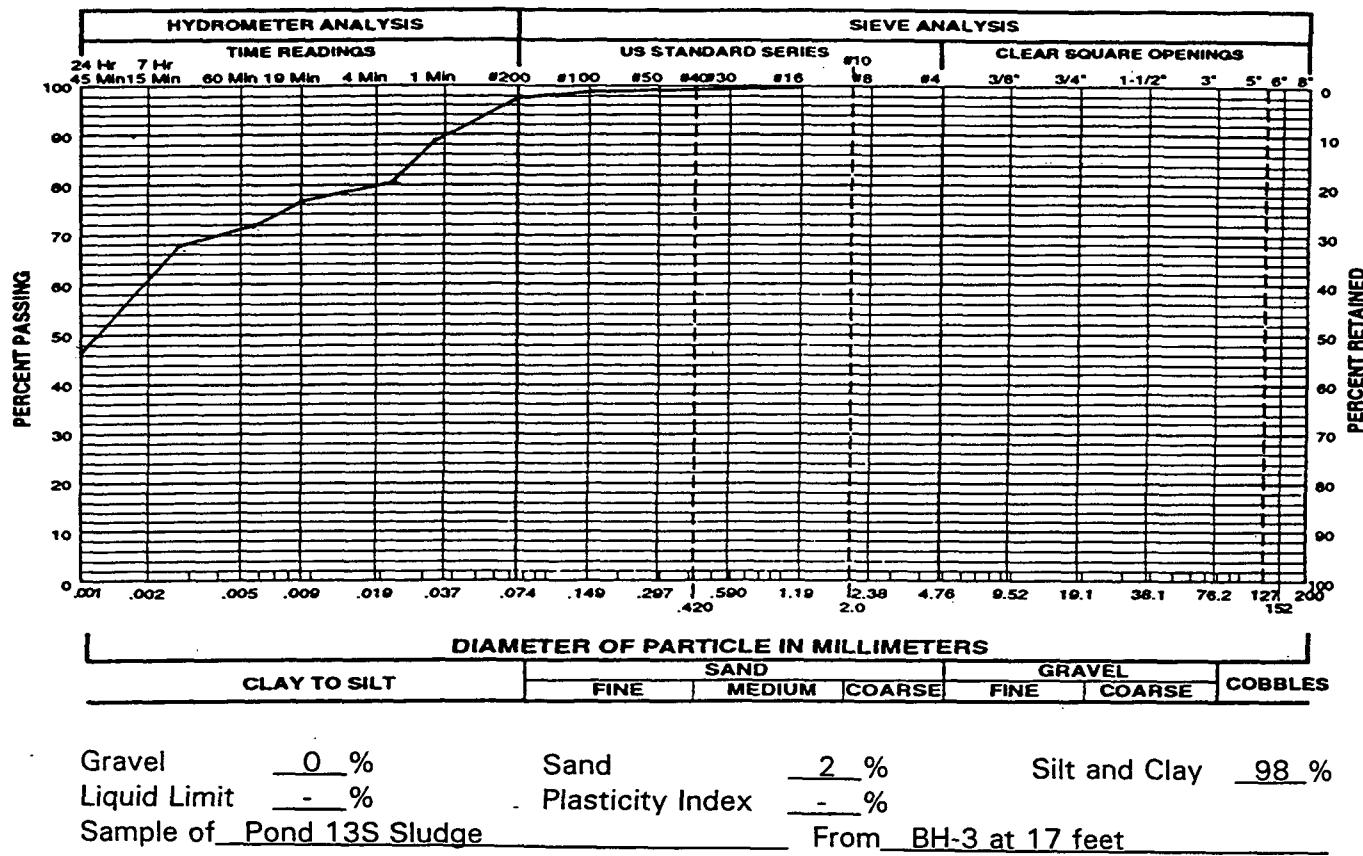


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GRADATION TEST RESULTS

Figure 11

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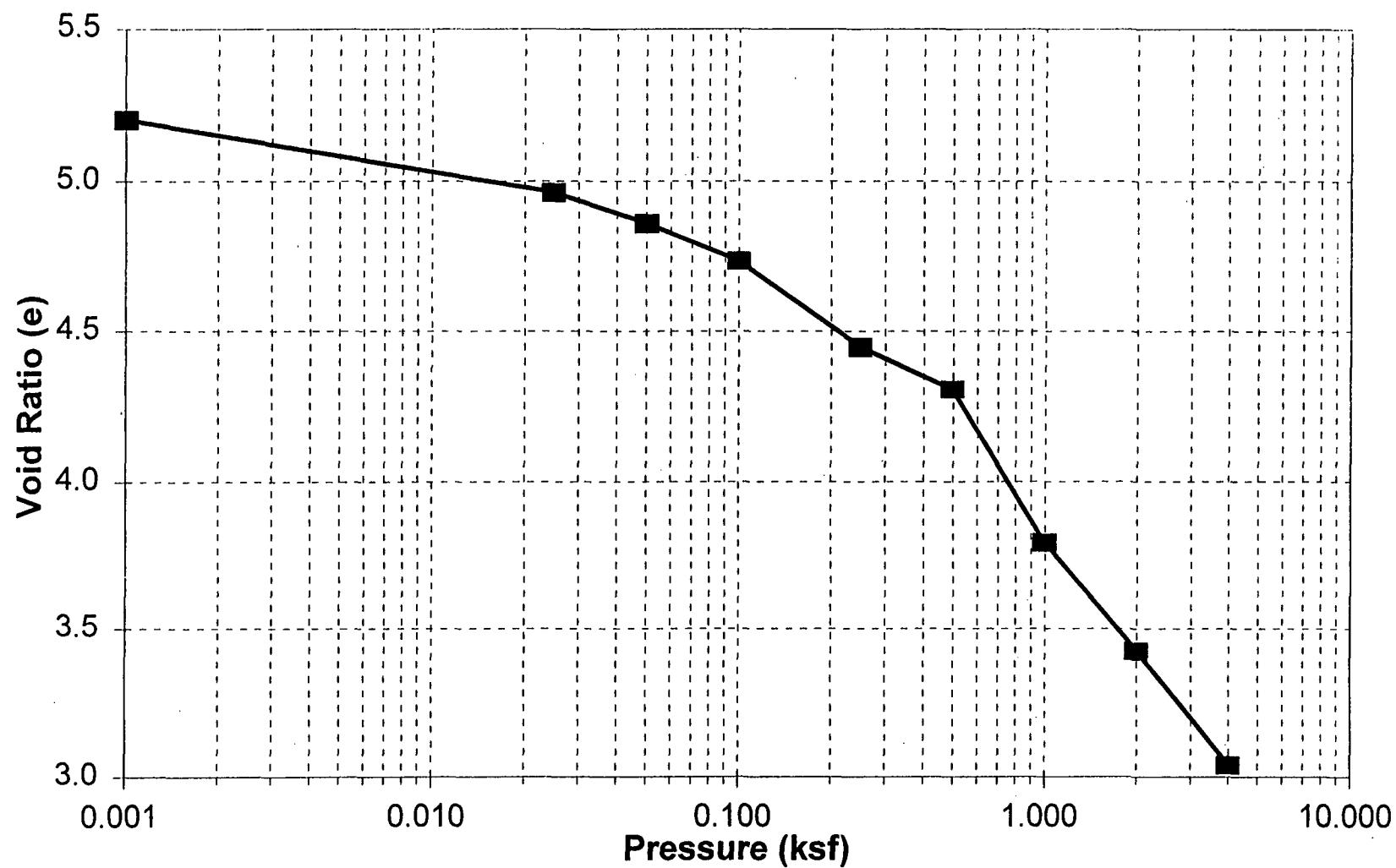
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GRADATION TEST RESULTS

Figure 12

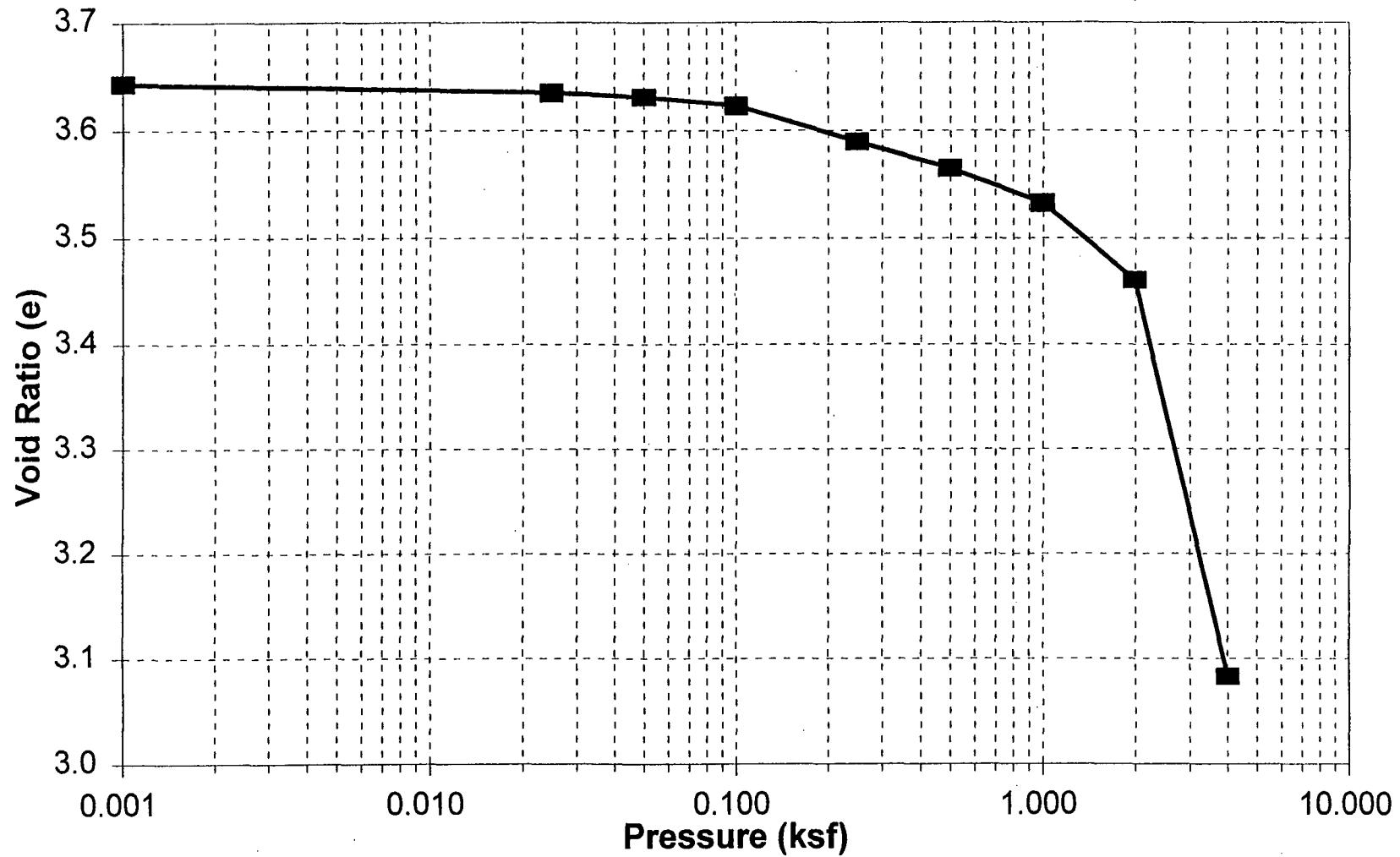
One Dimensional Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



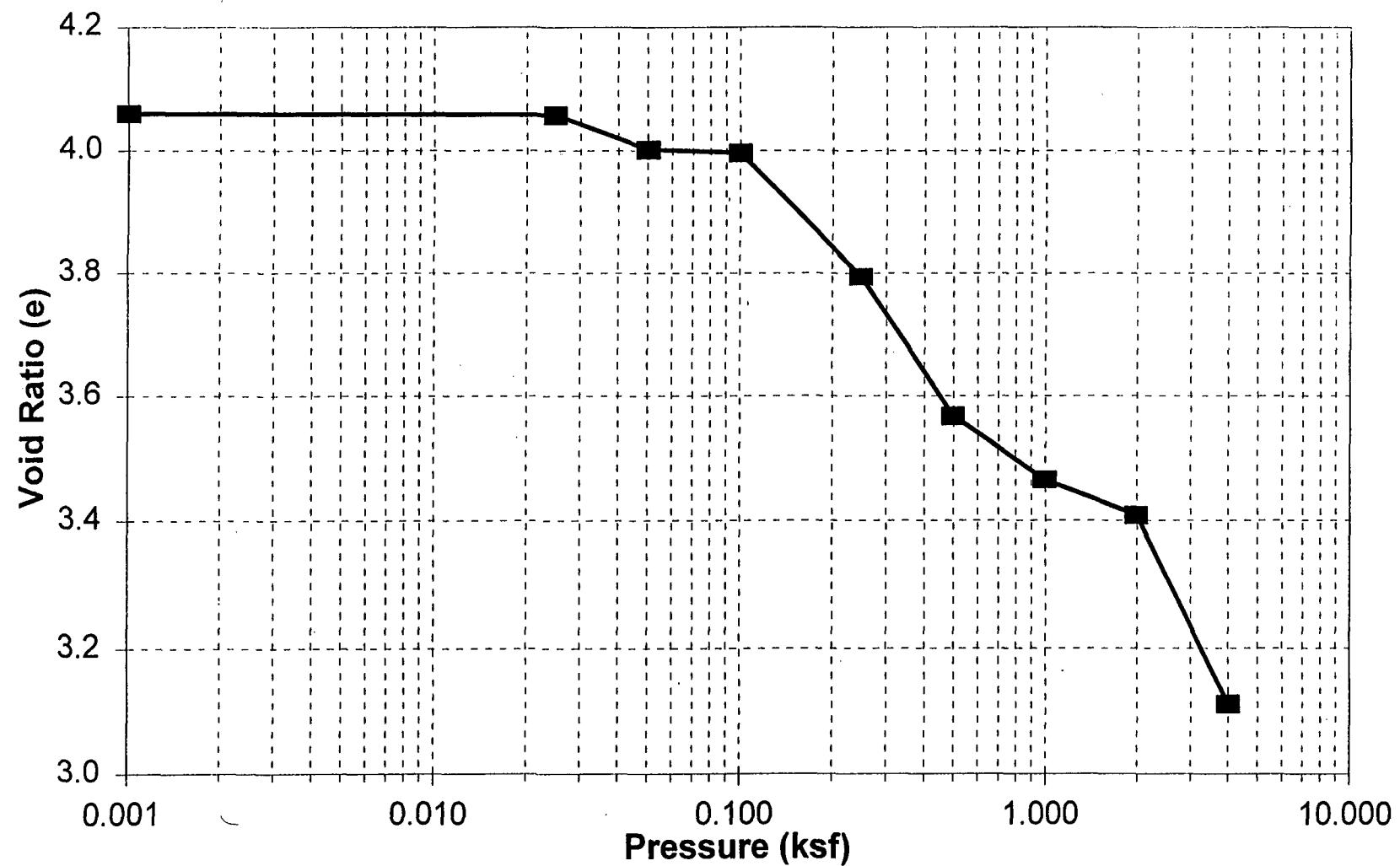
One Dimensional Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



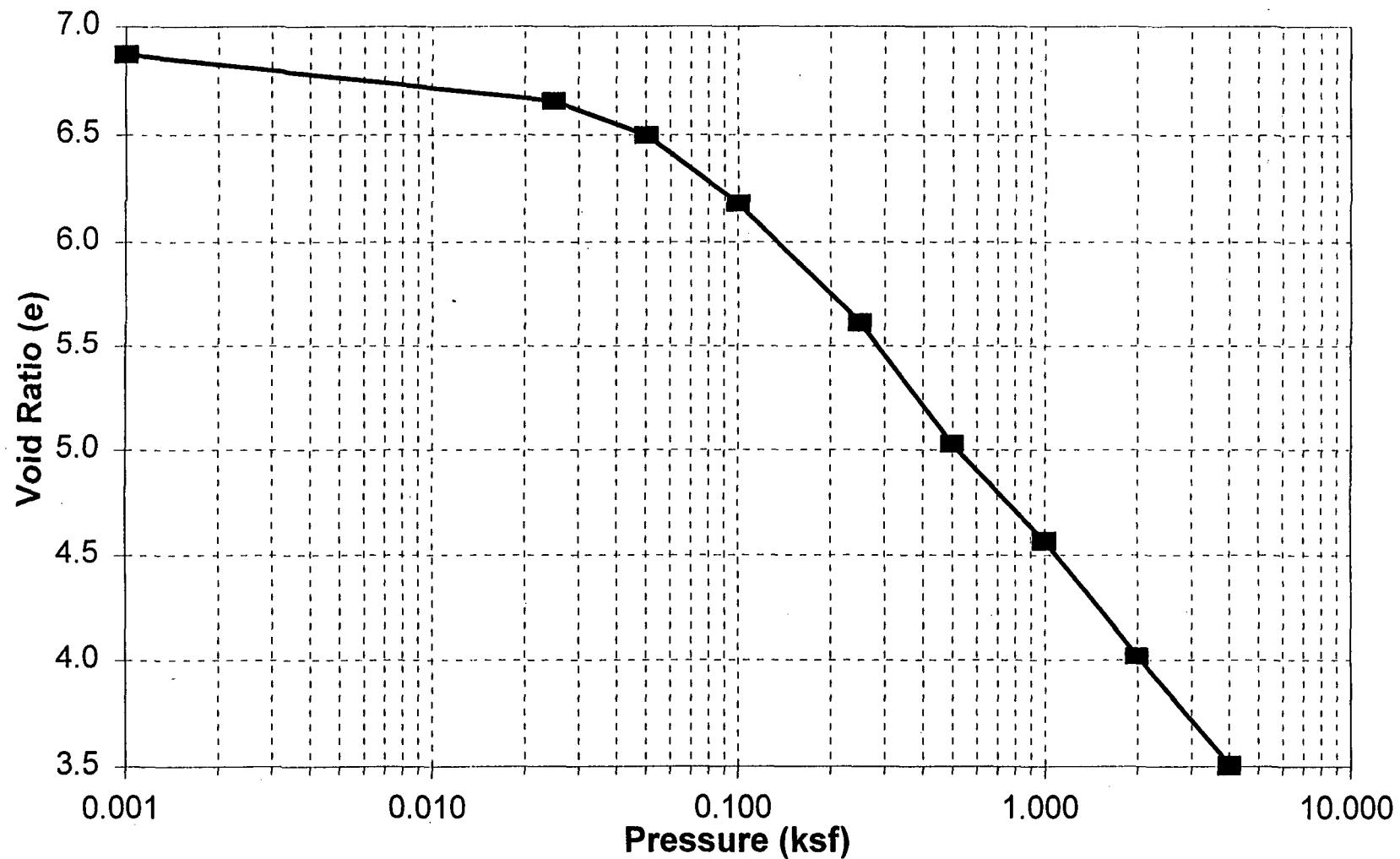
One Dimensional Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



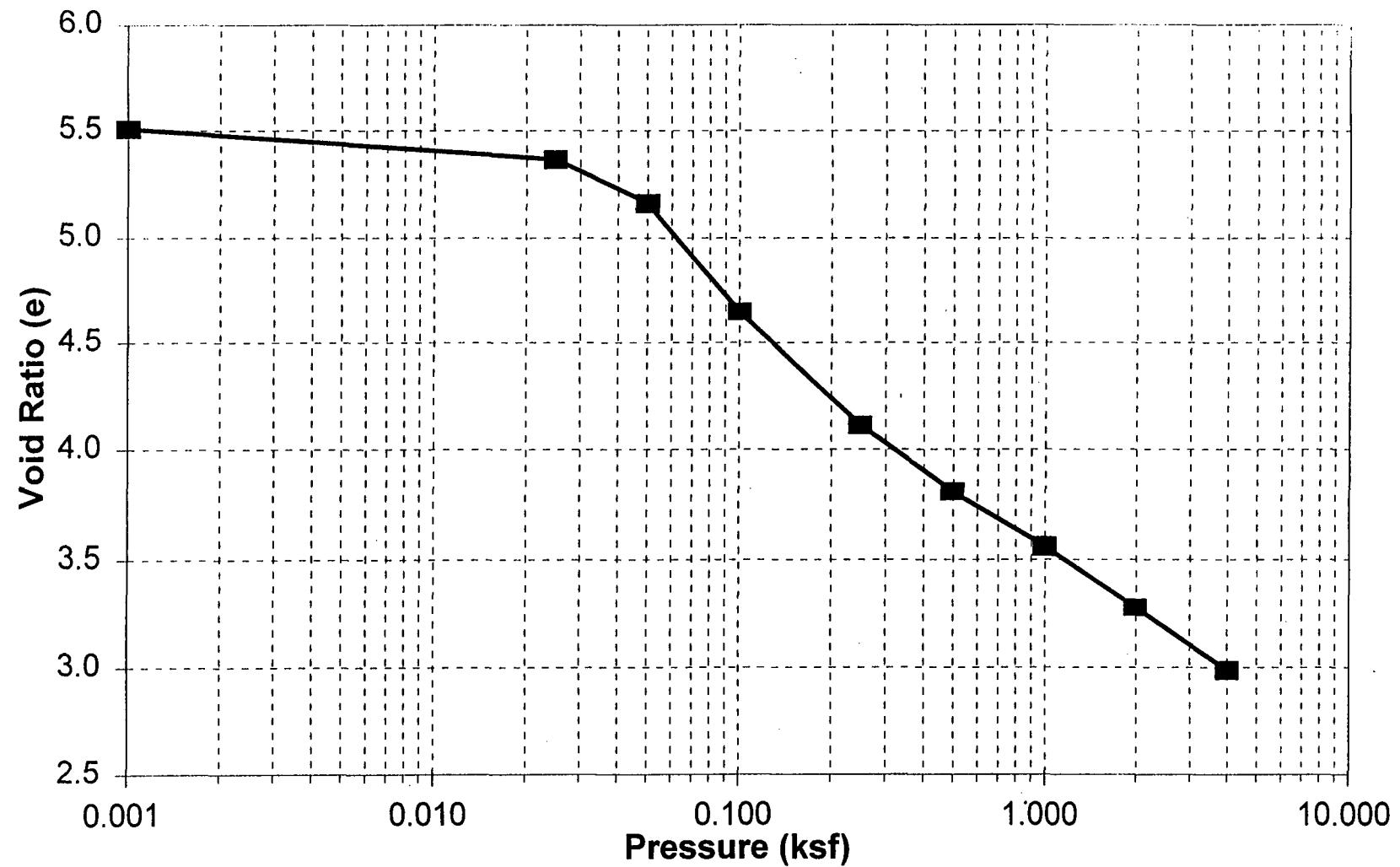
One Dimensional Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



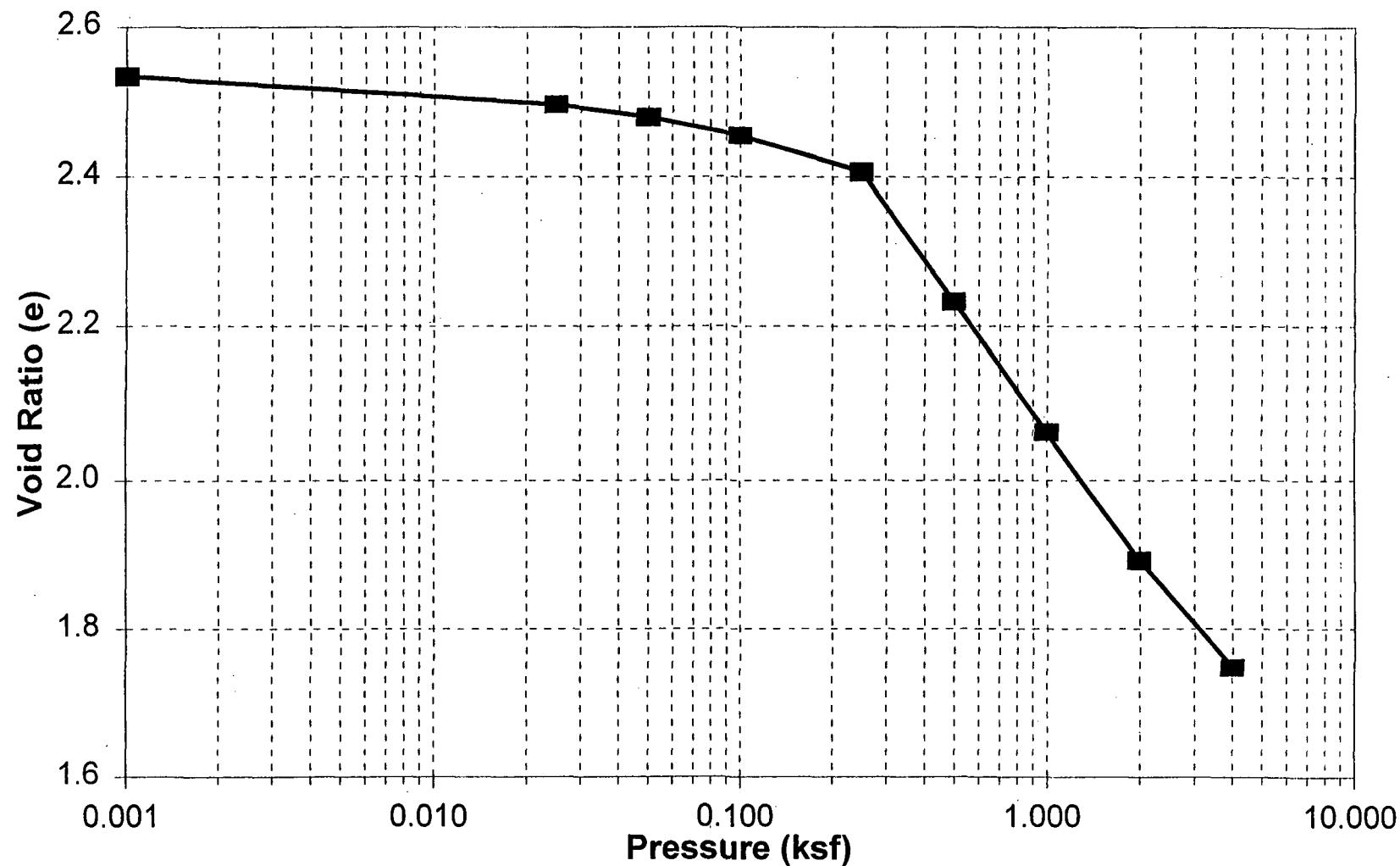
One Dimensional Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



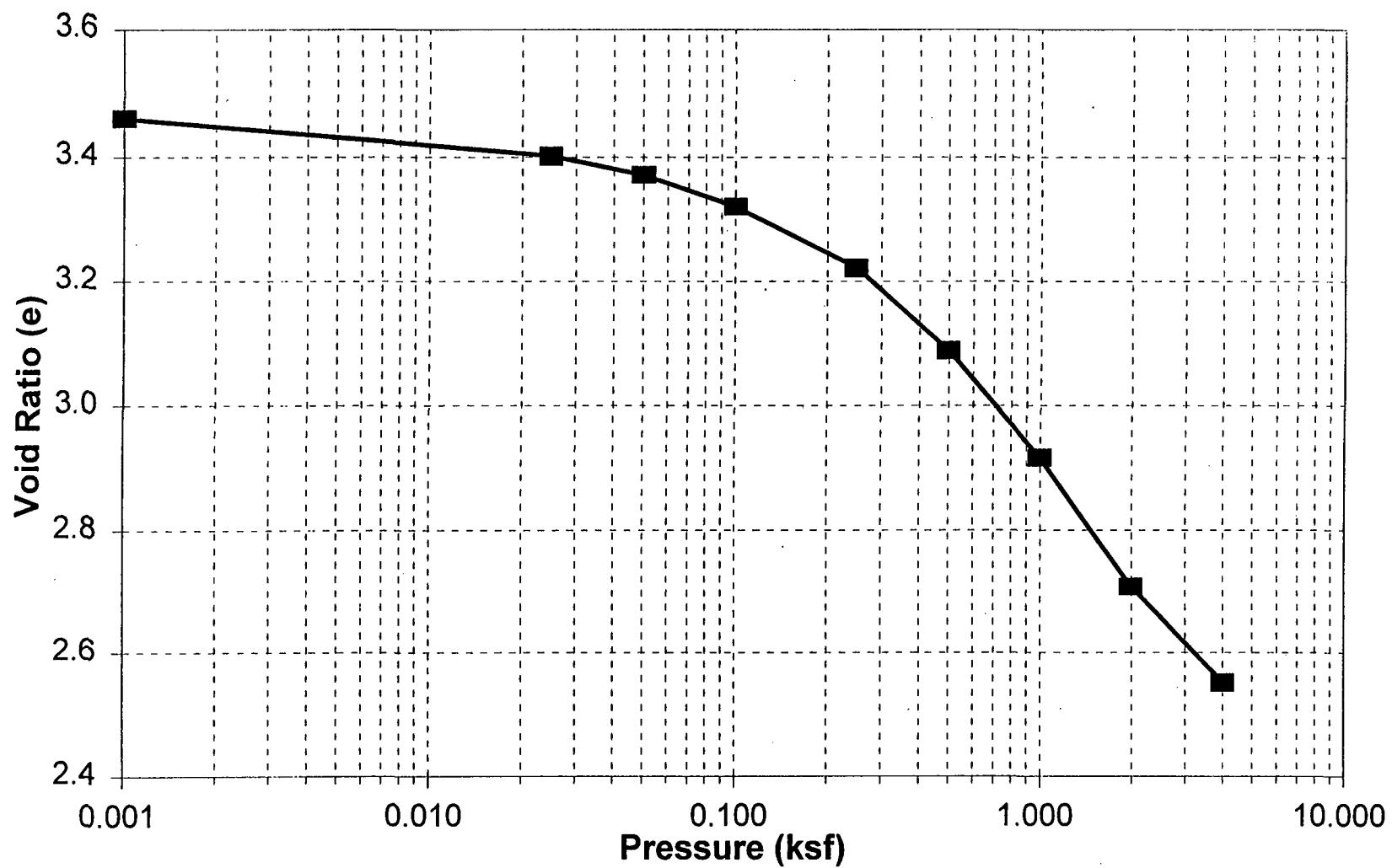
One Dimensional Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



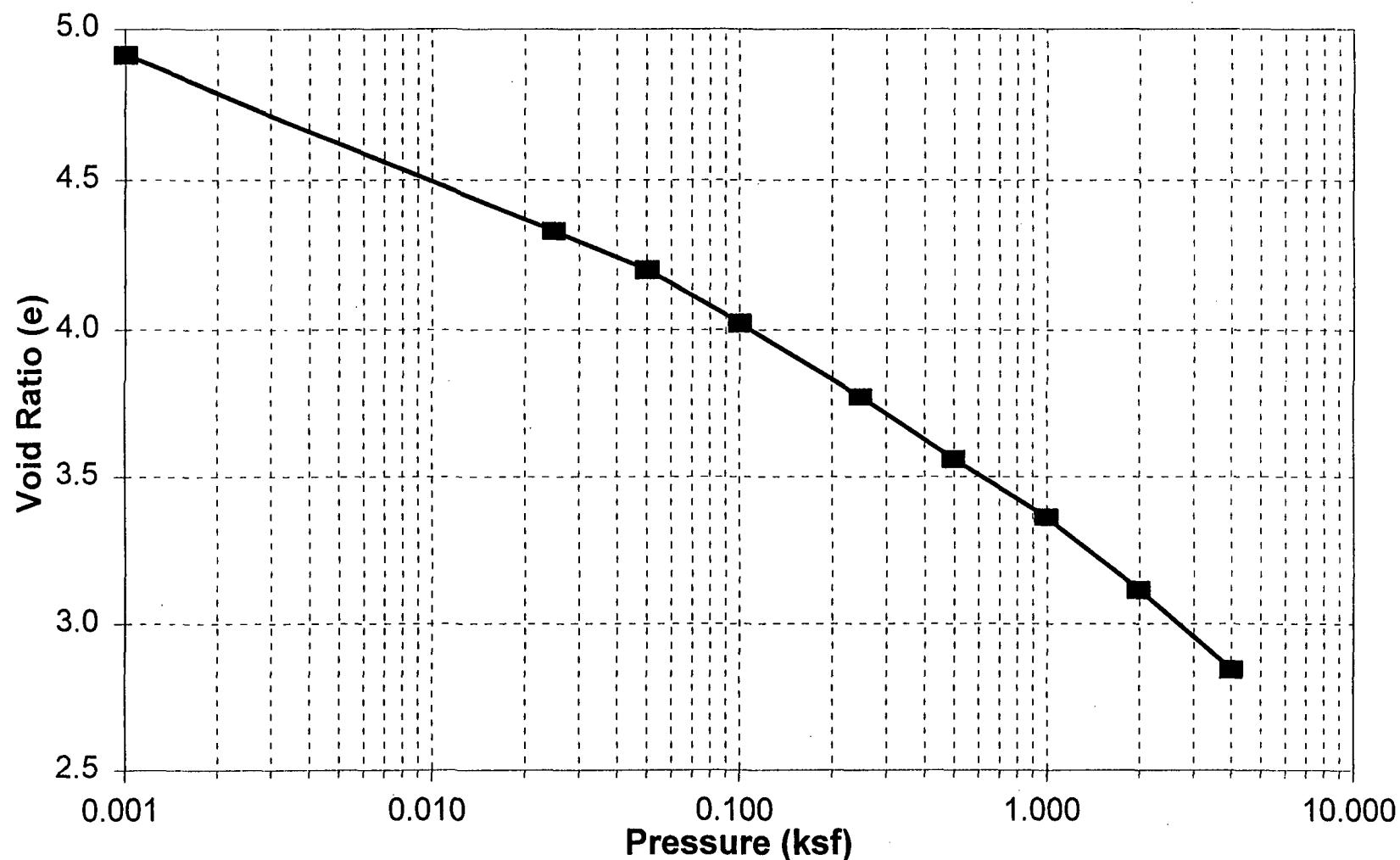
One Dimensional Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



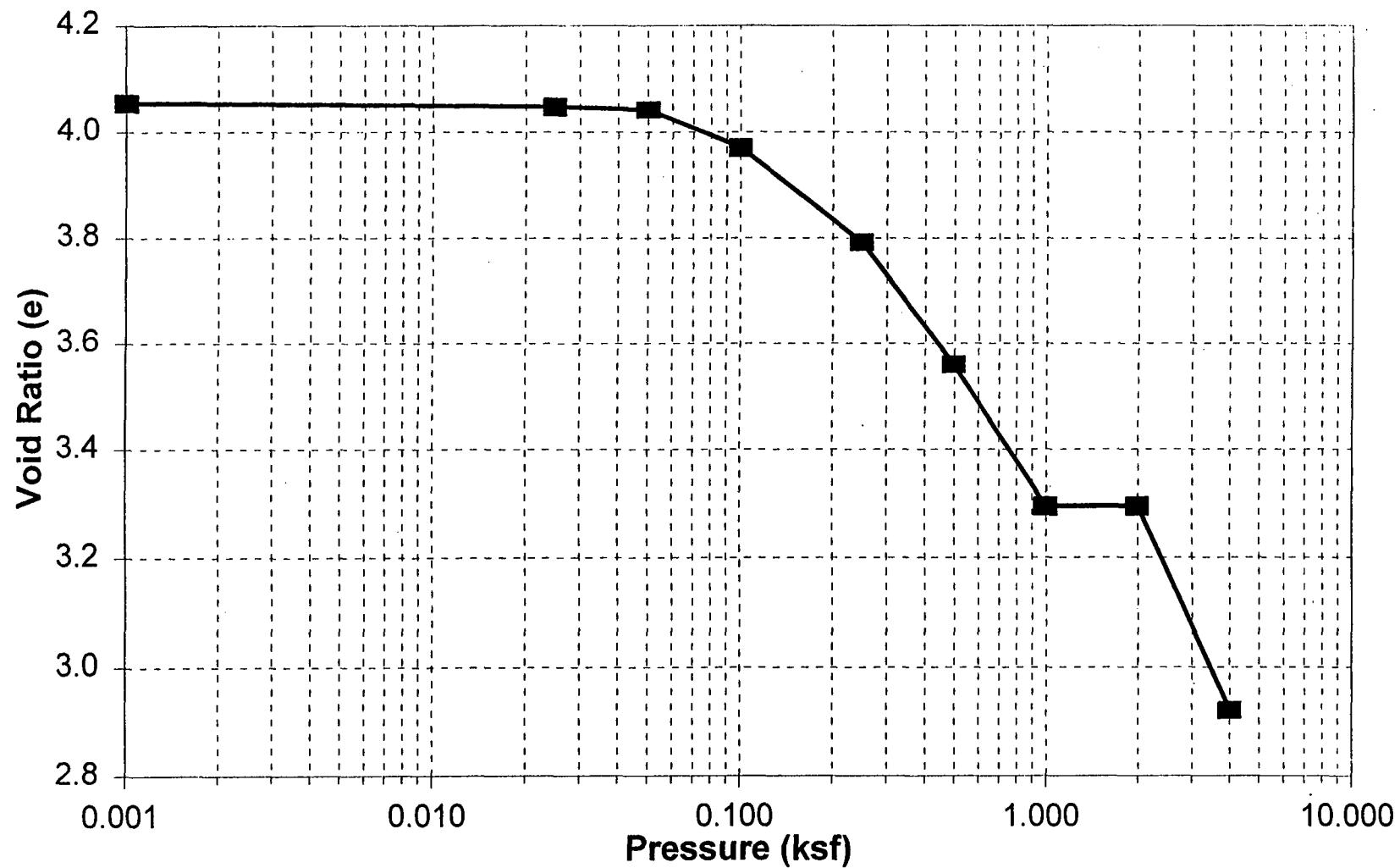
One Dimensional Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



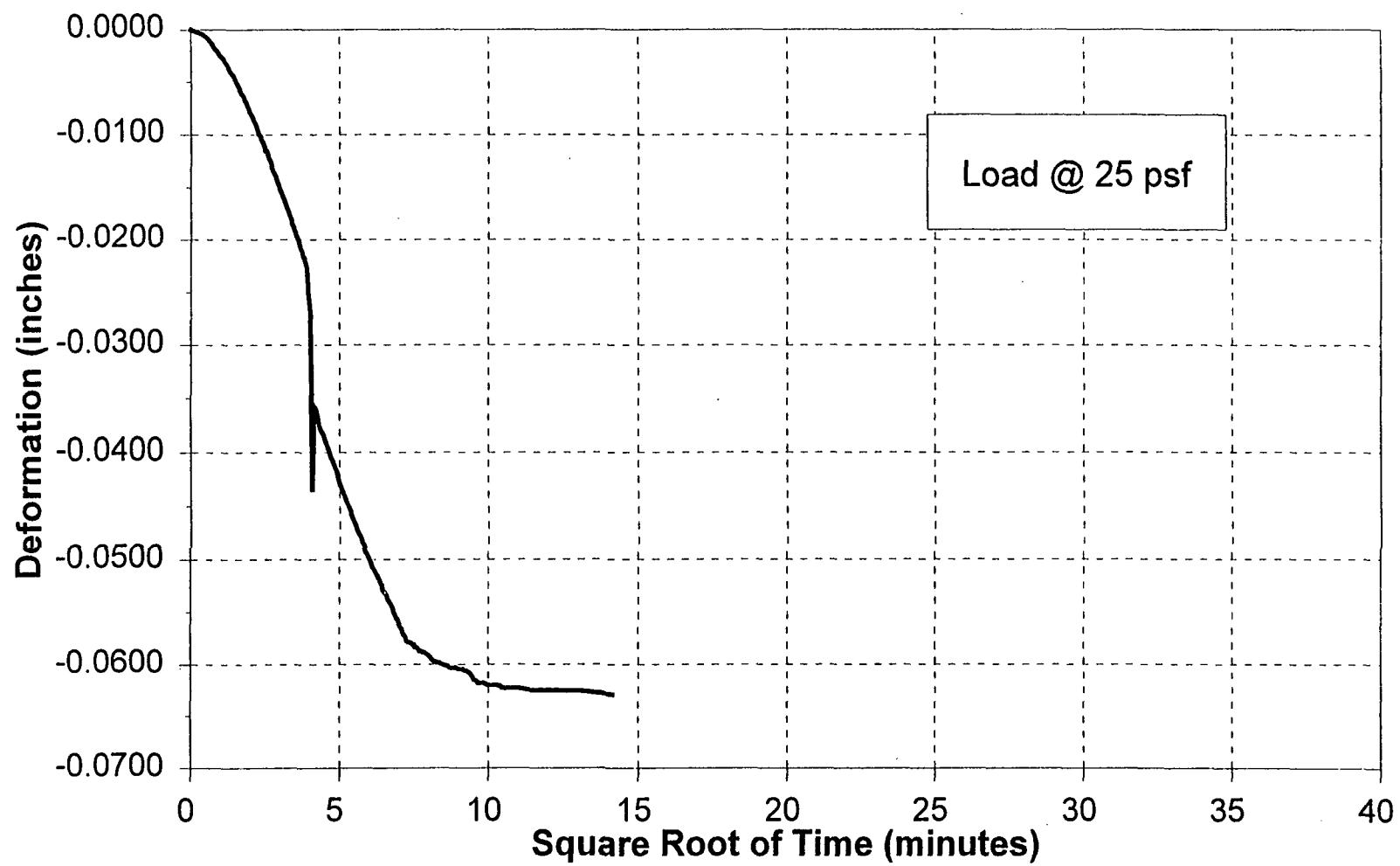
One Dimensional Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



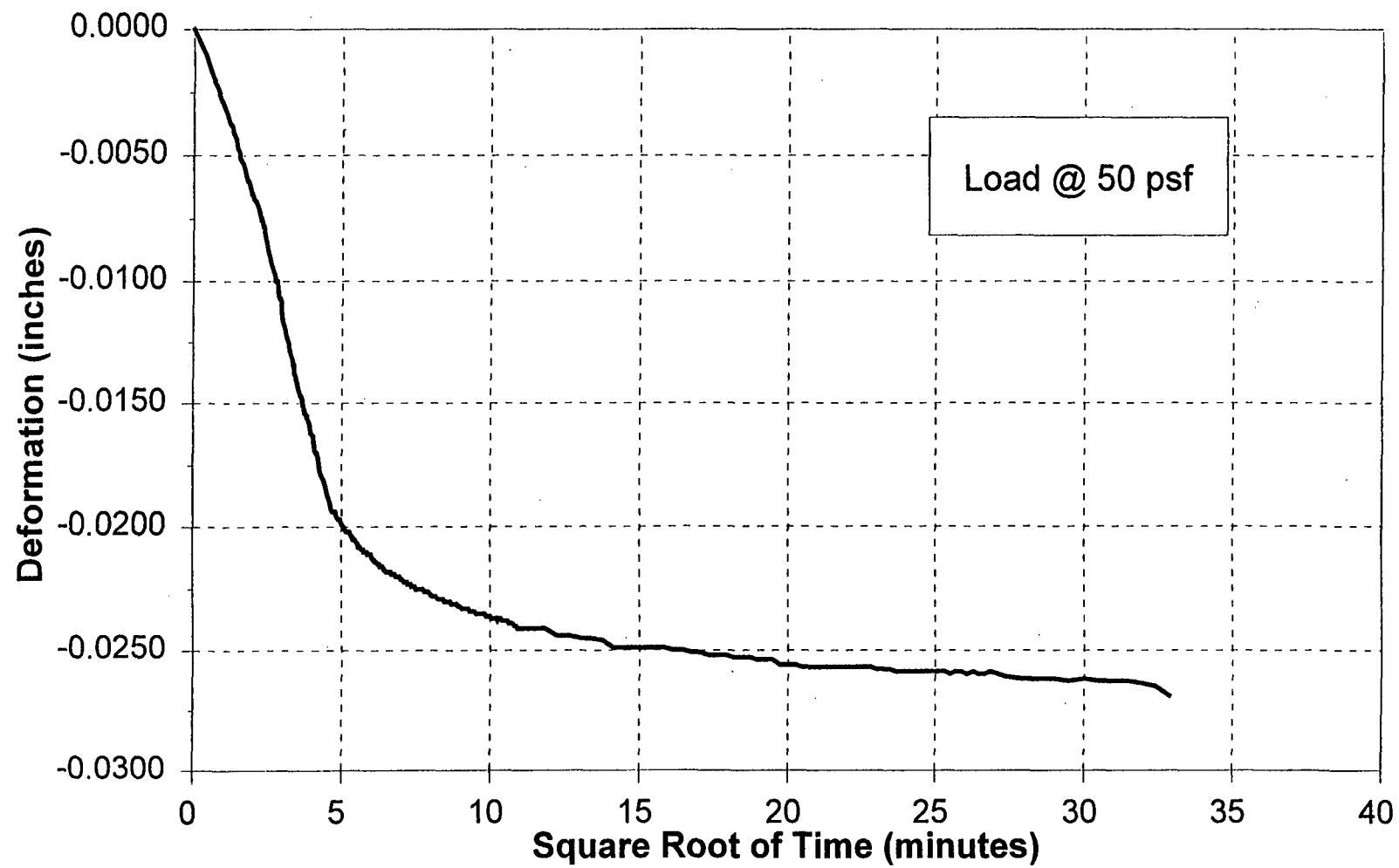
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

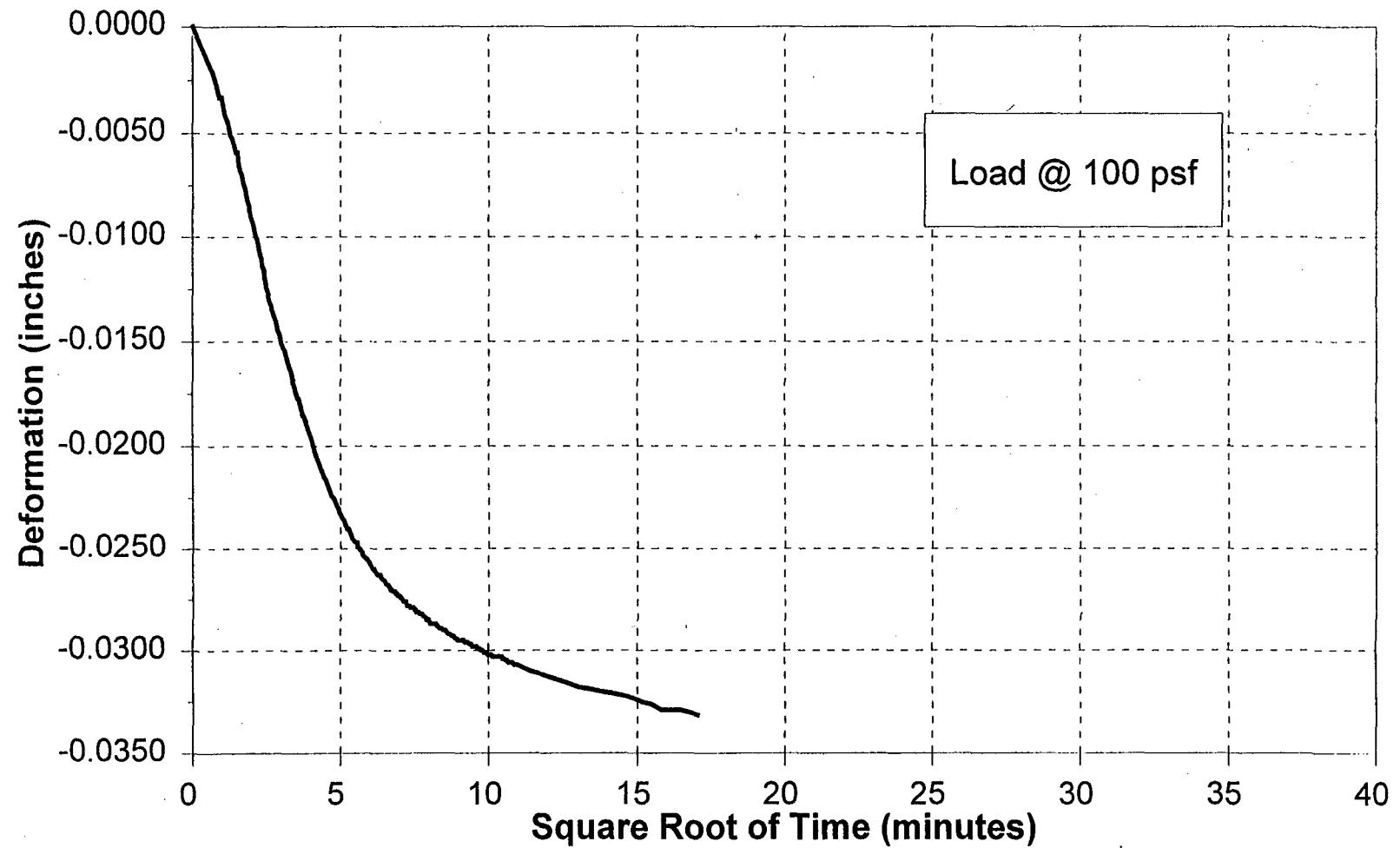


Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

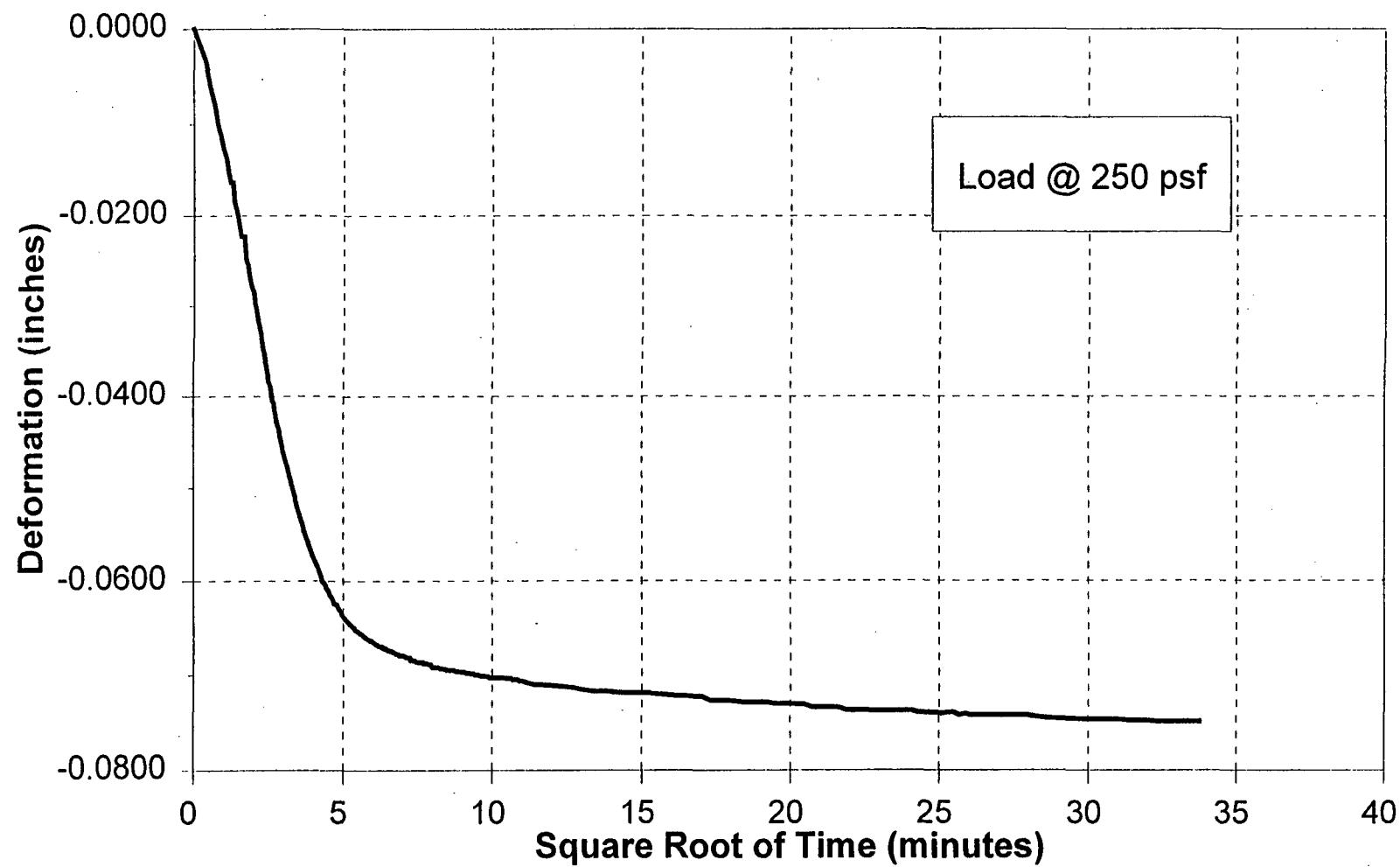


Time Rate of Consolidation
Sample: Pond 8E, BH-1 @ 7 feet



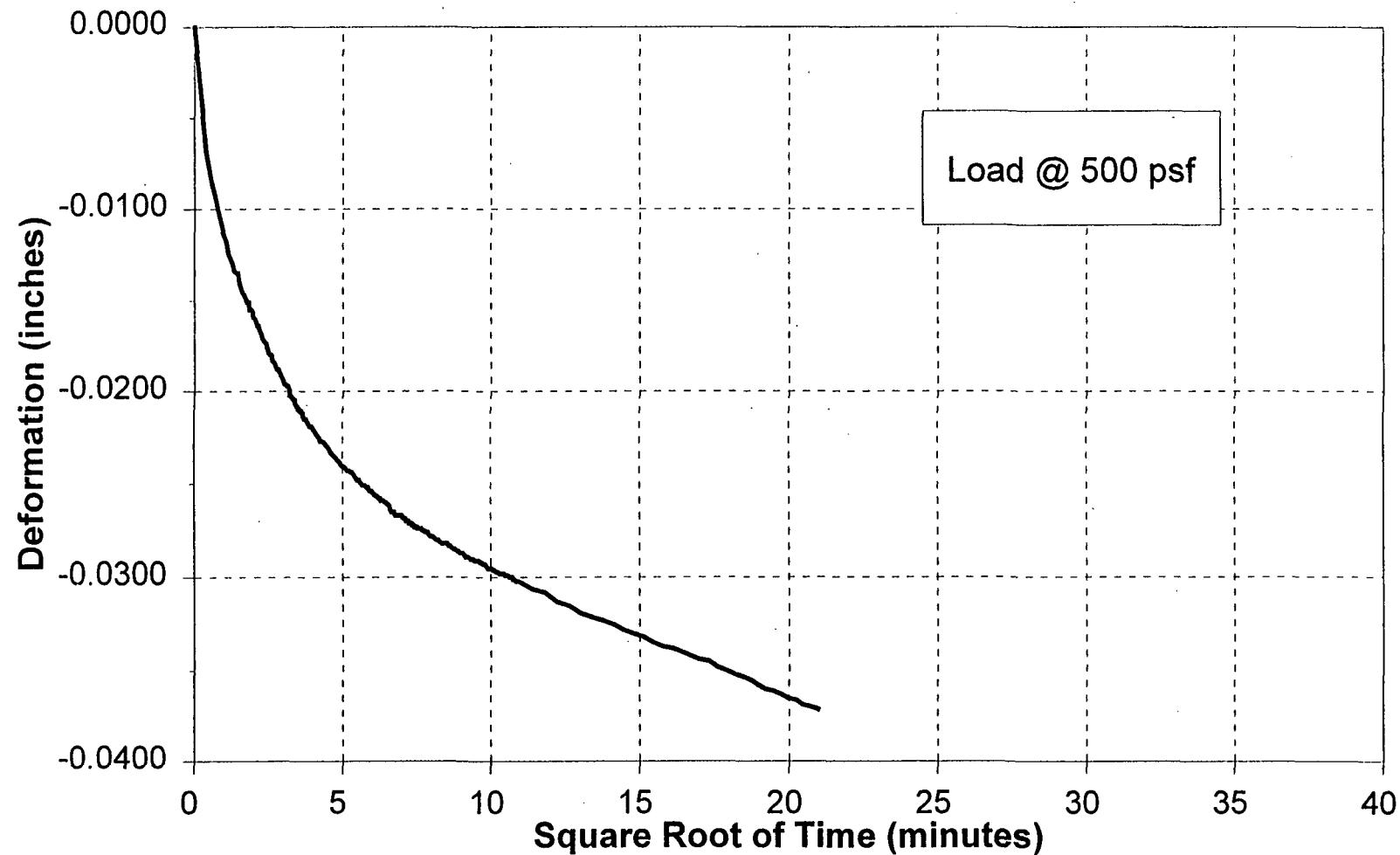
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



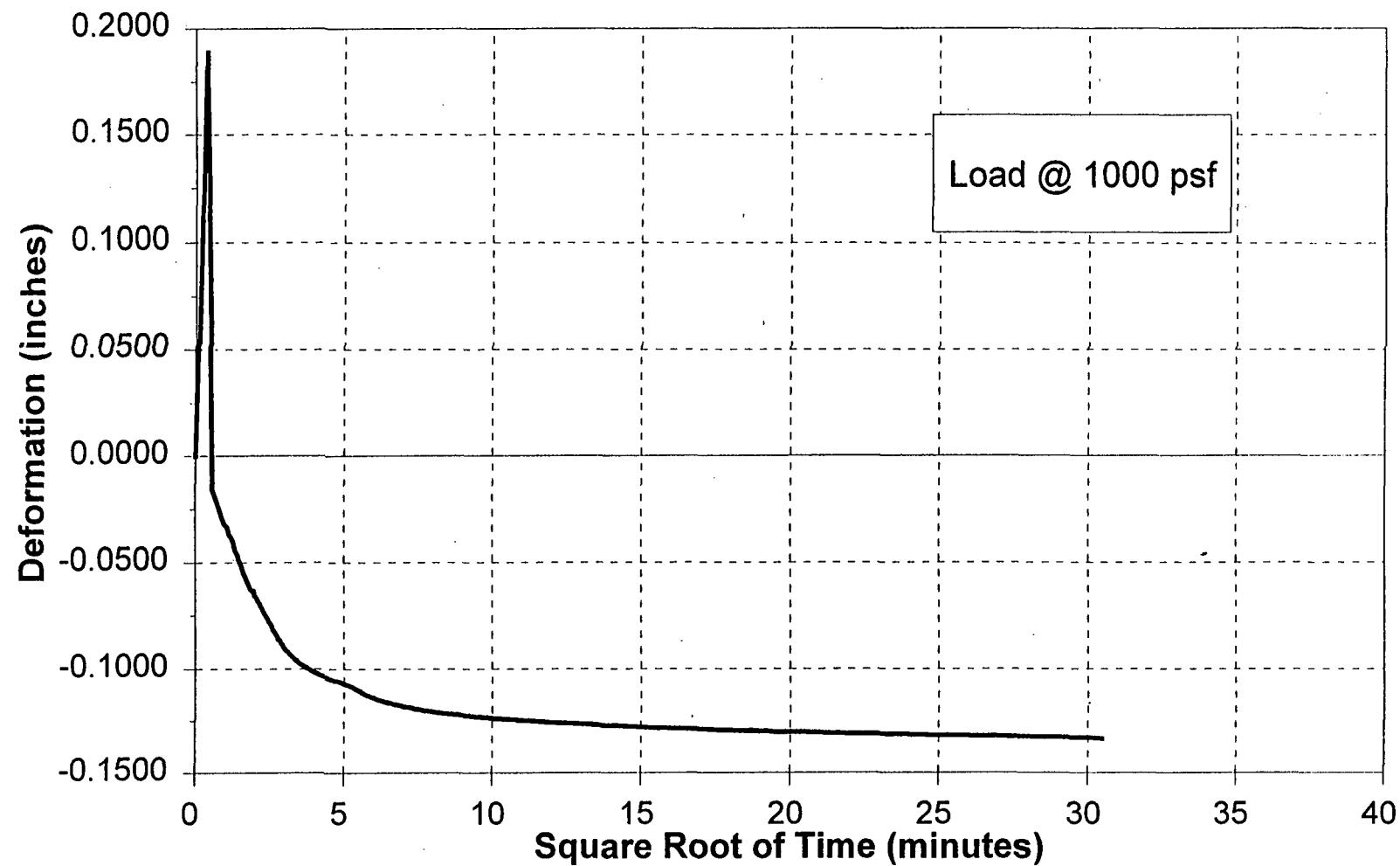
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



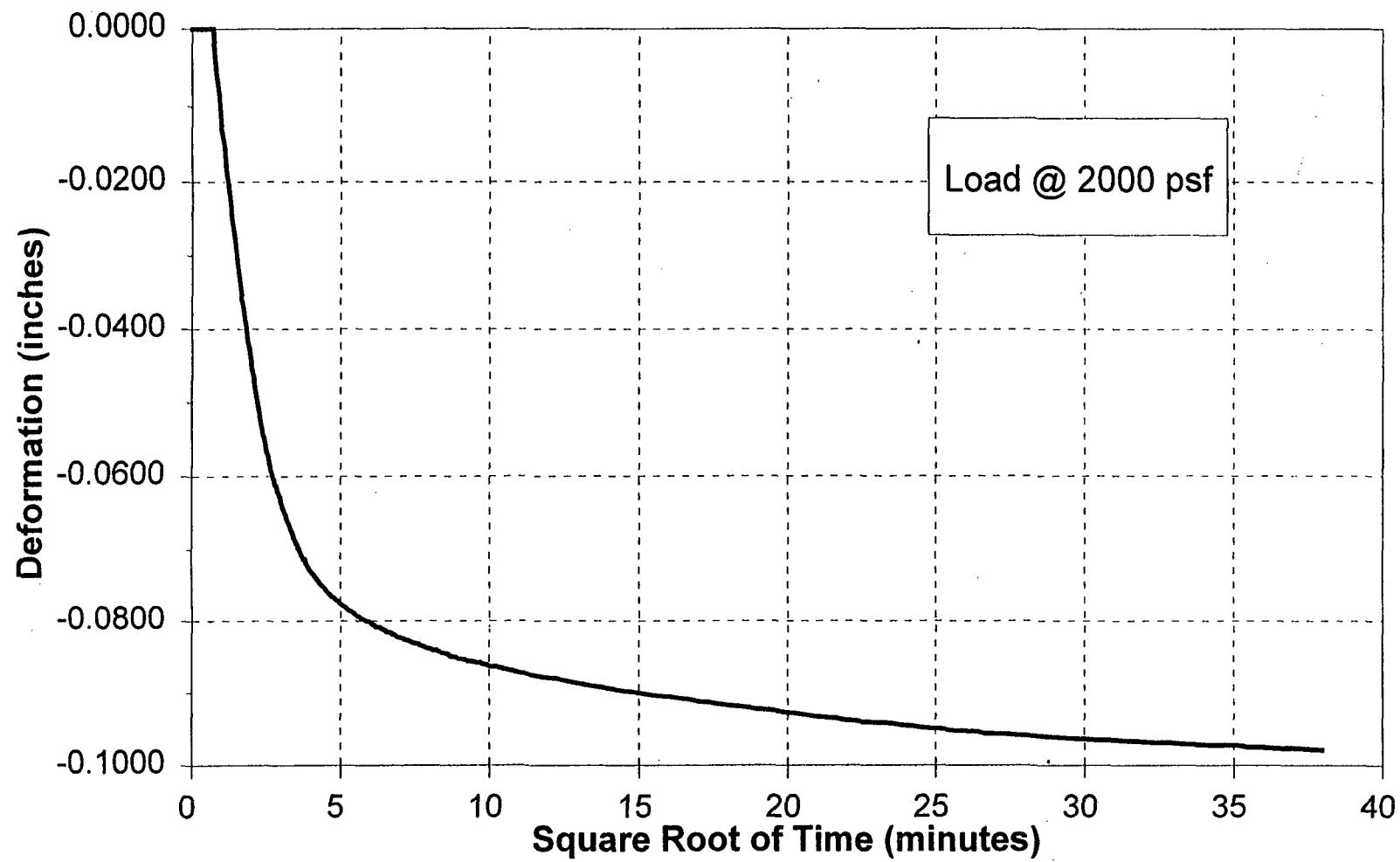
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



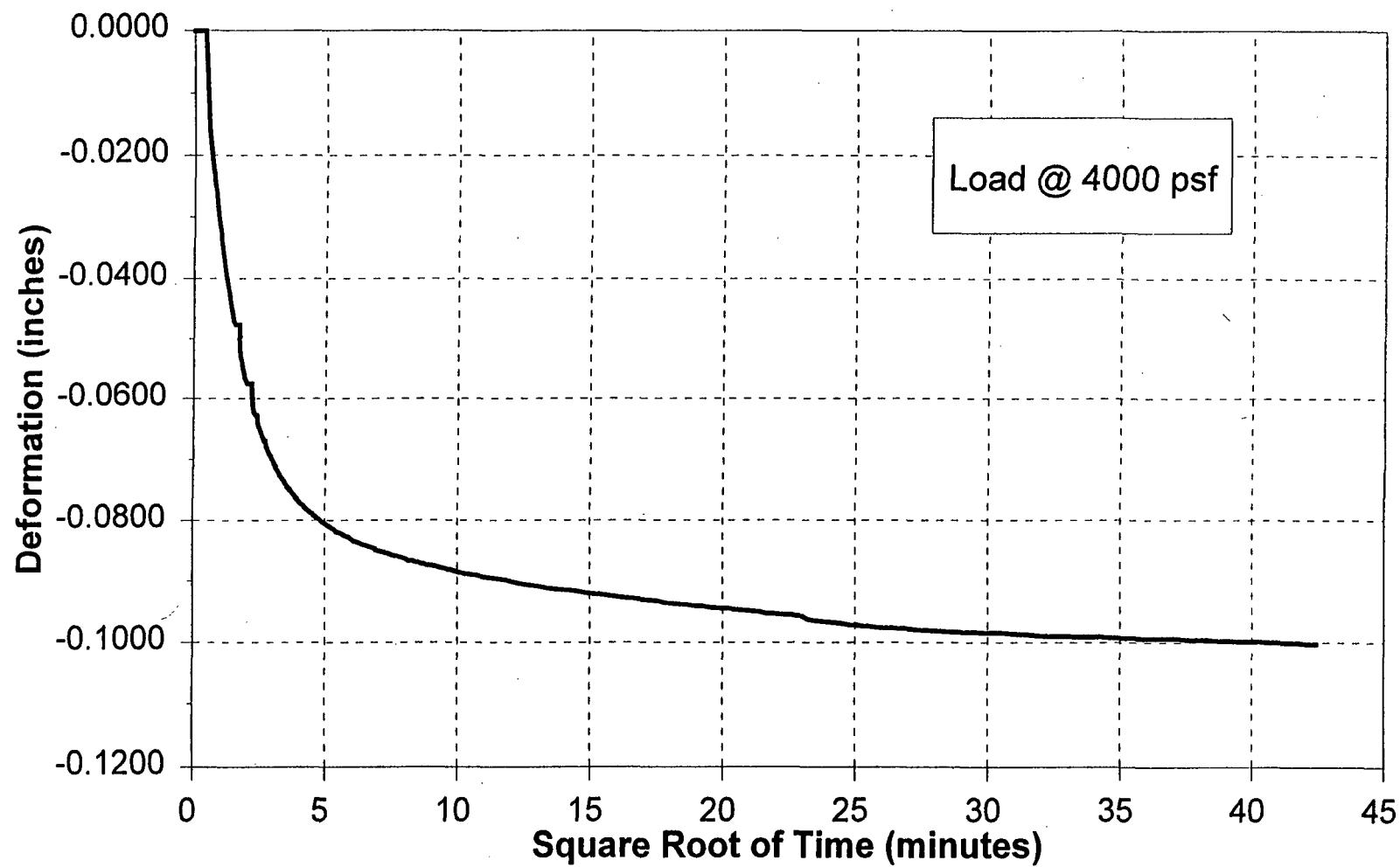
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



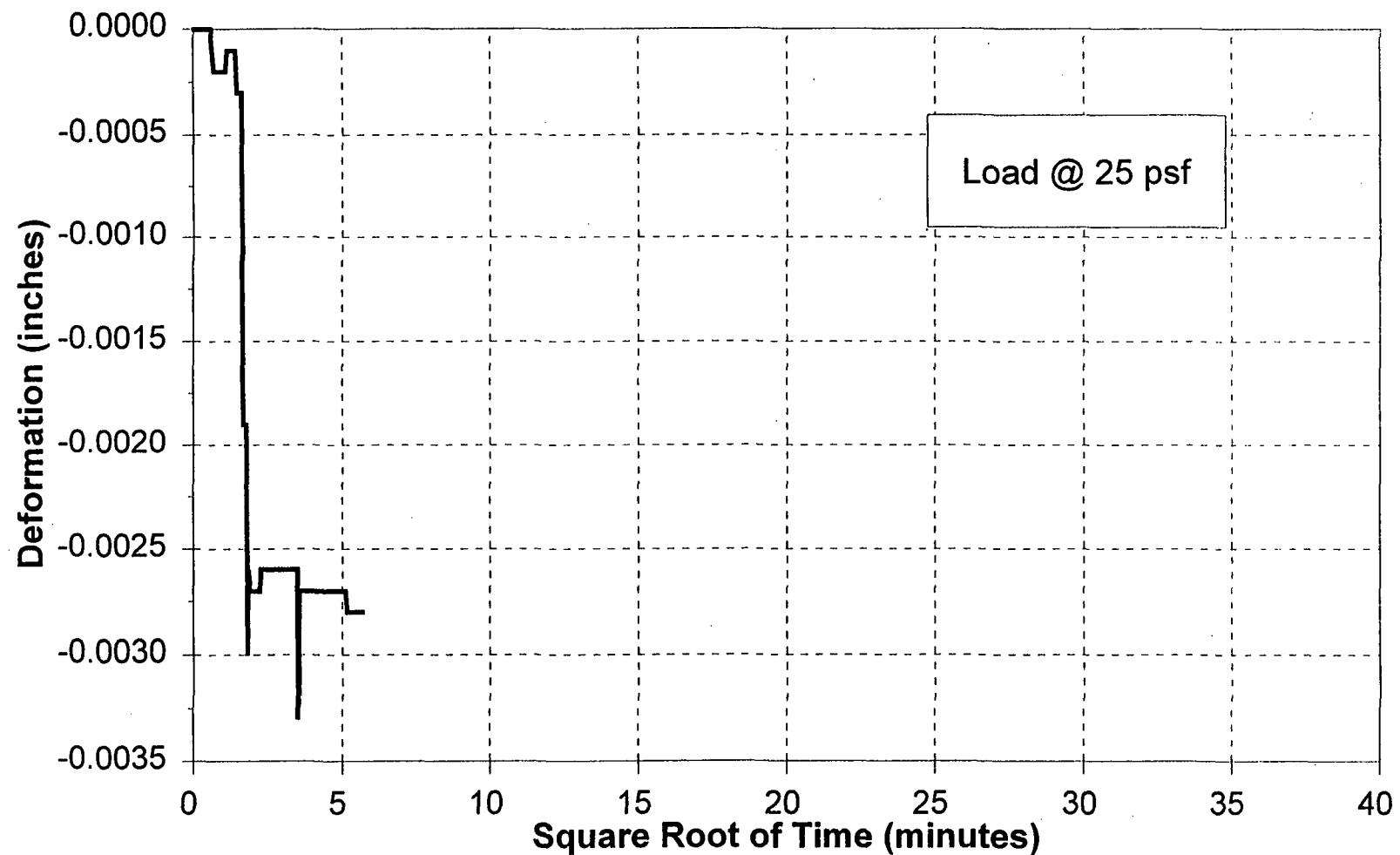
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



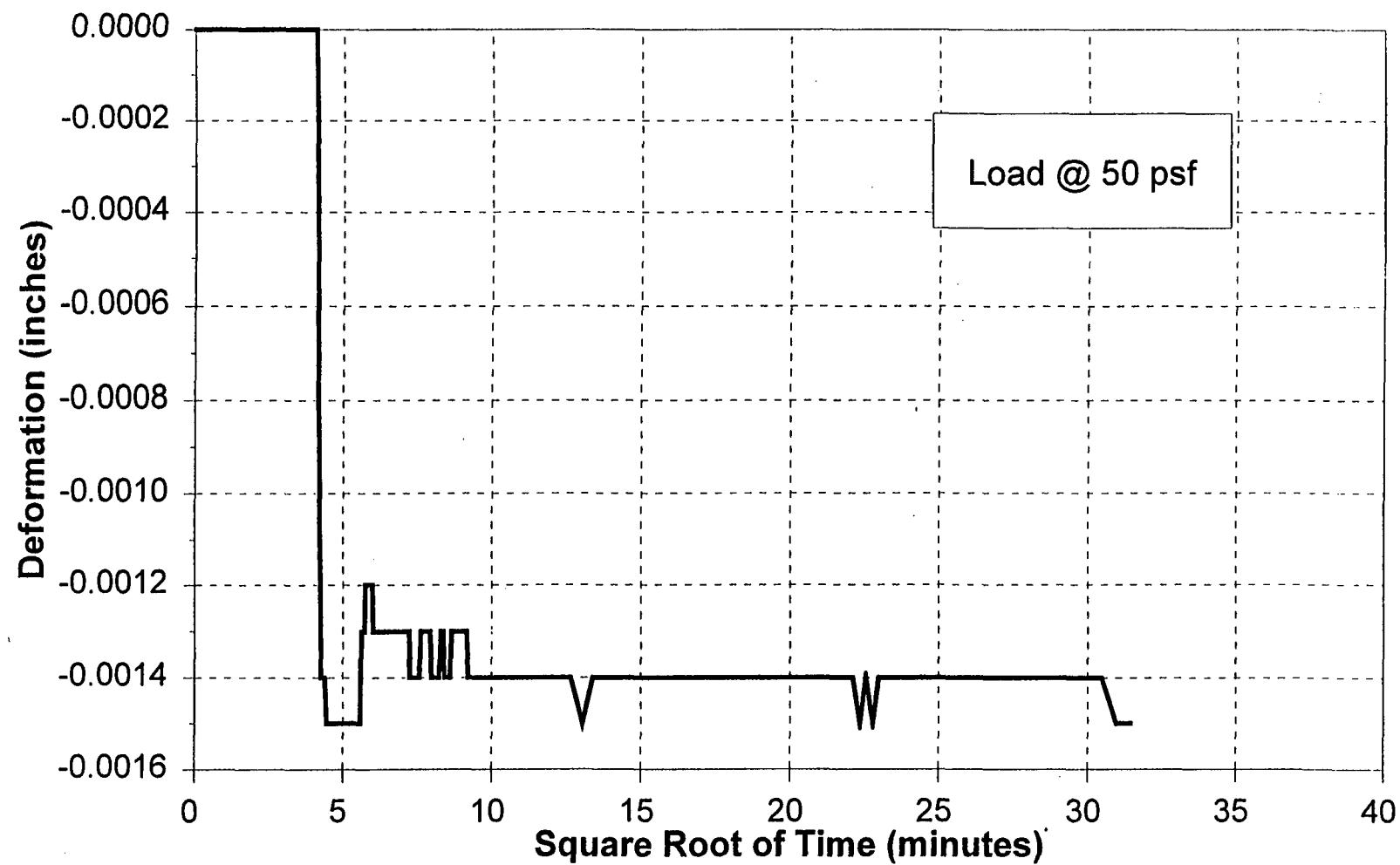
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.5 feet



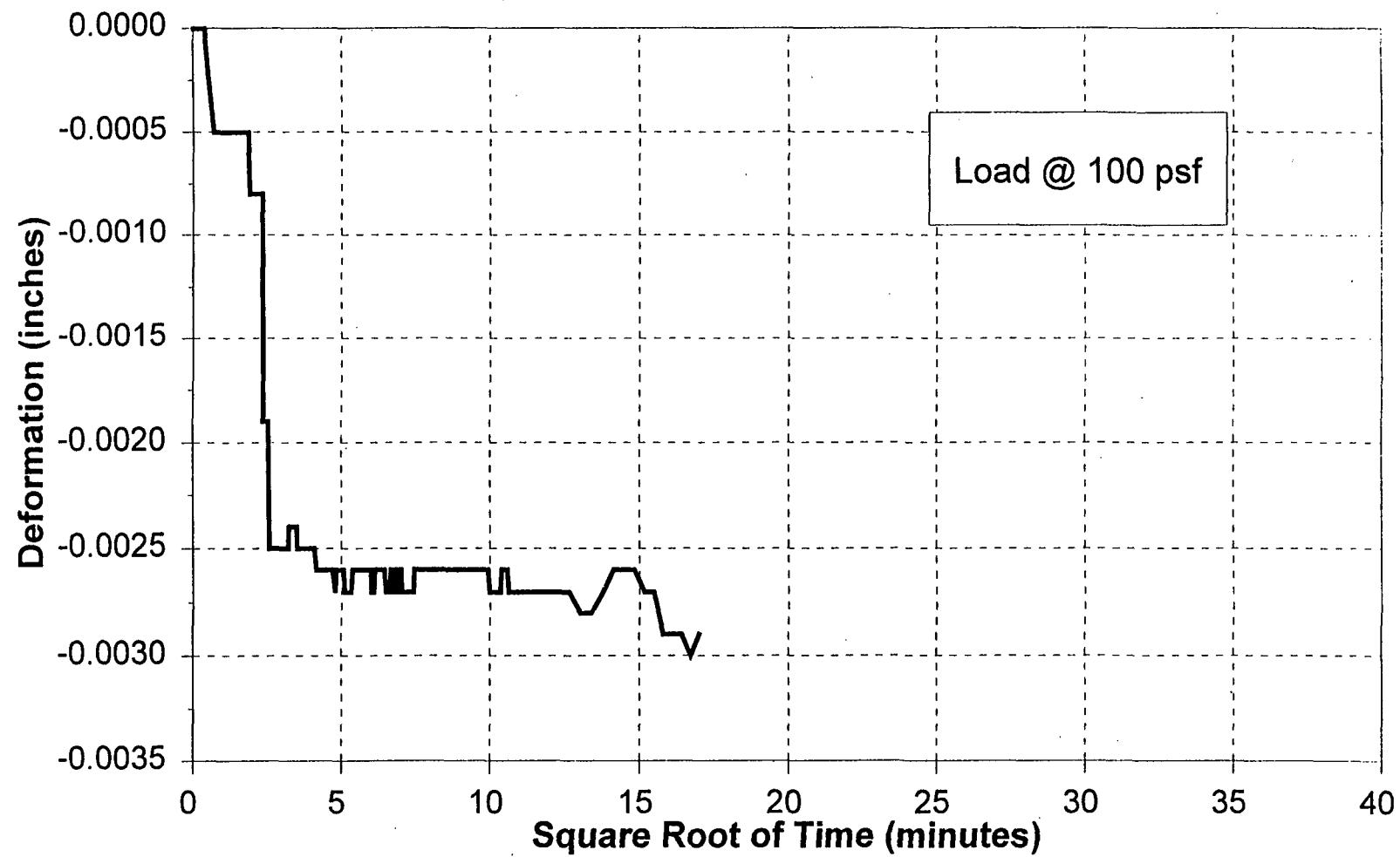
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



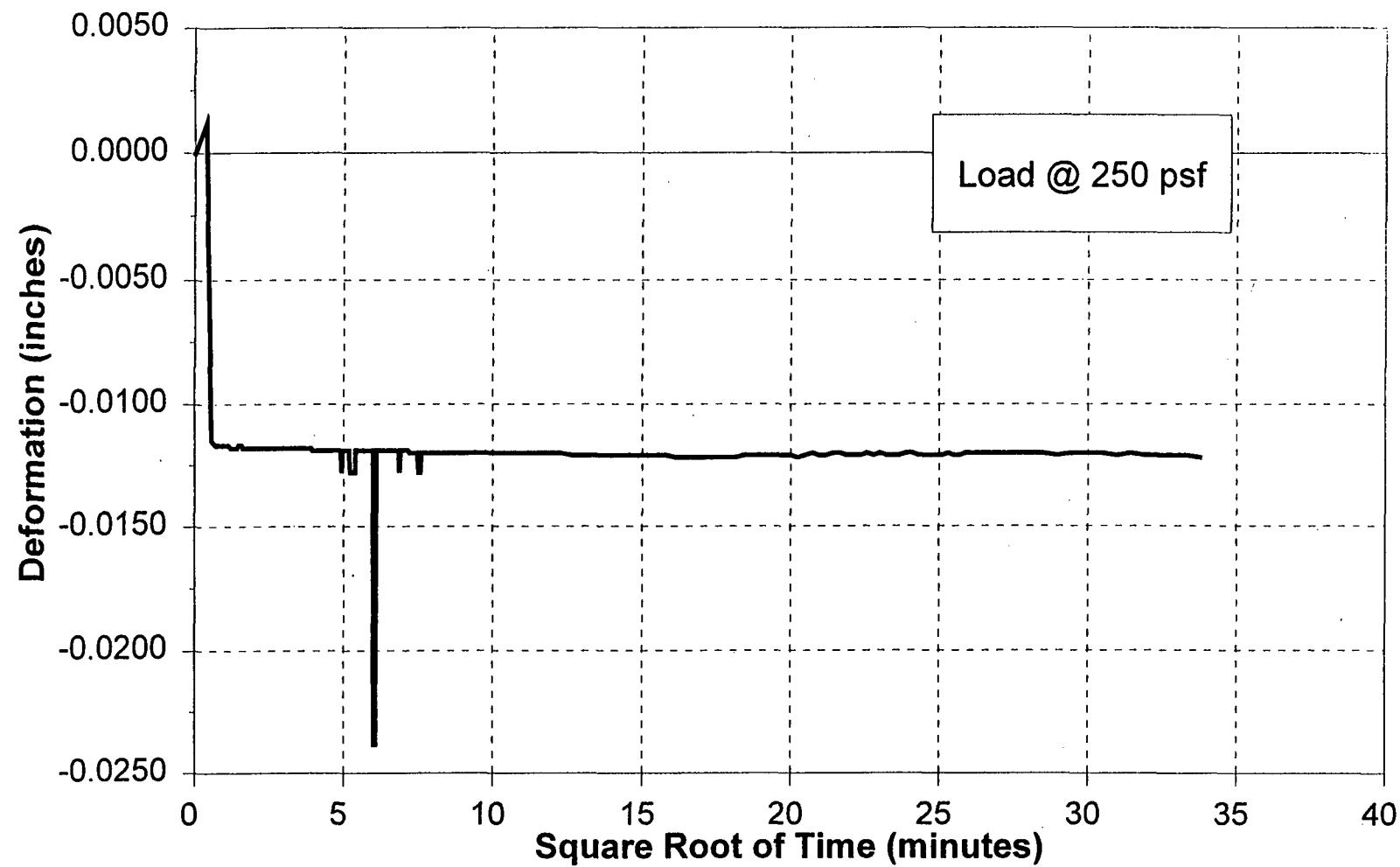
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



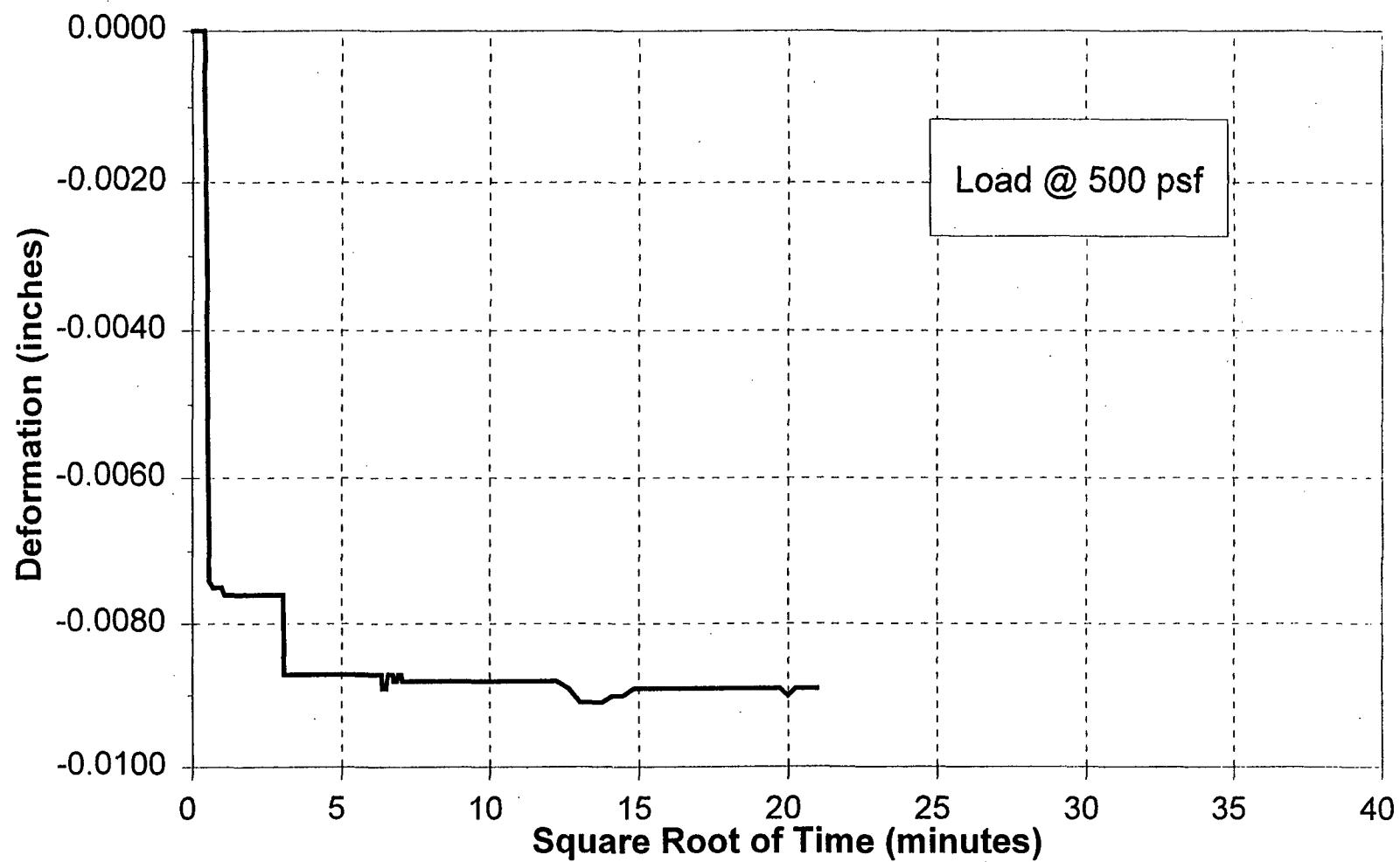
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



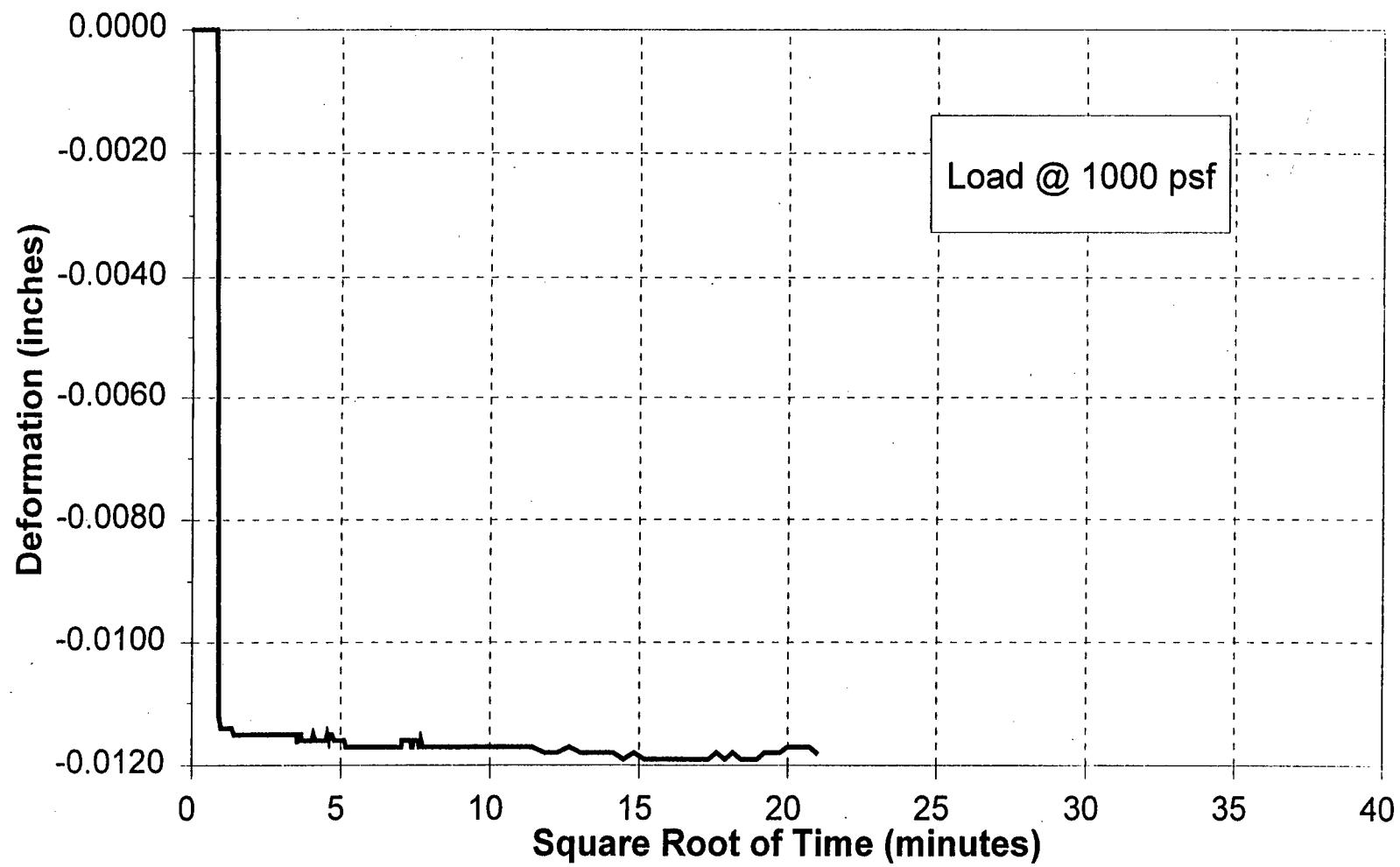
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



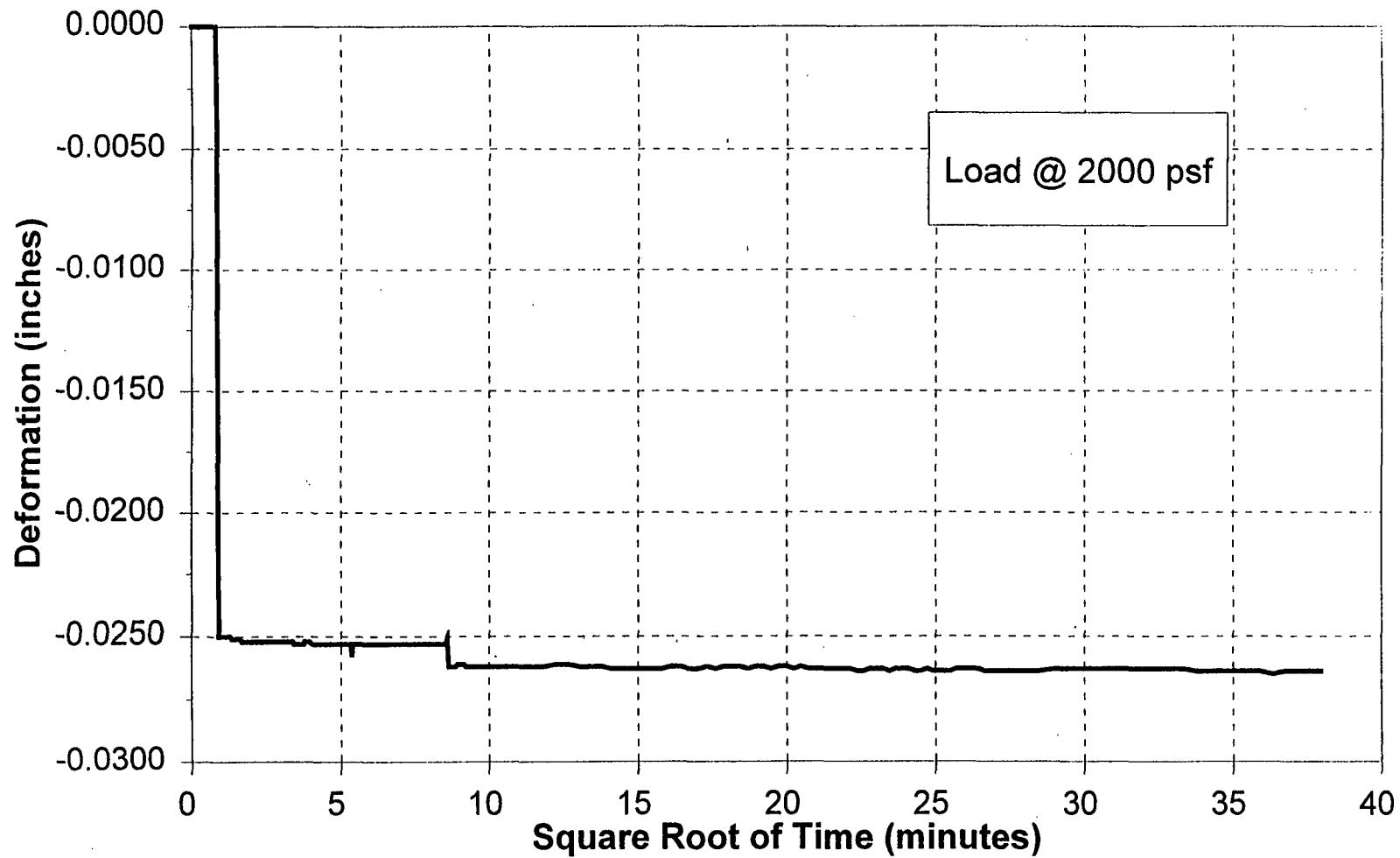
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



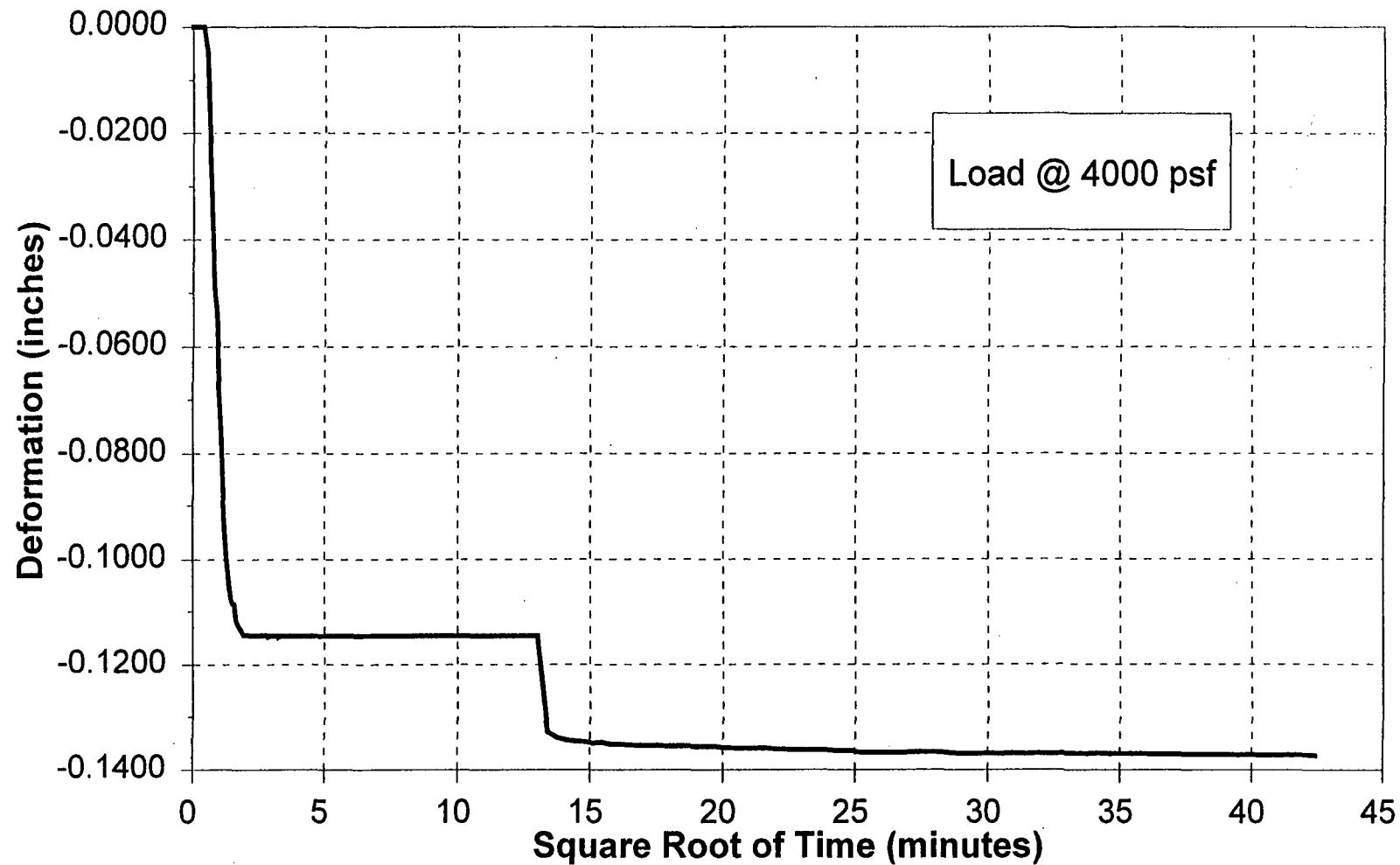
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



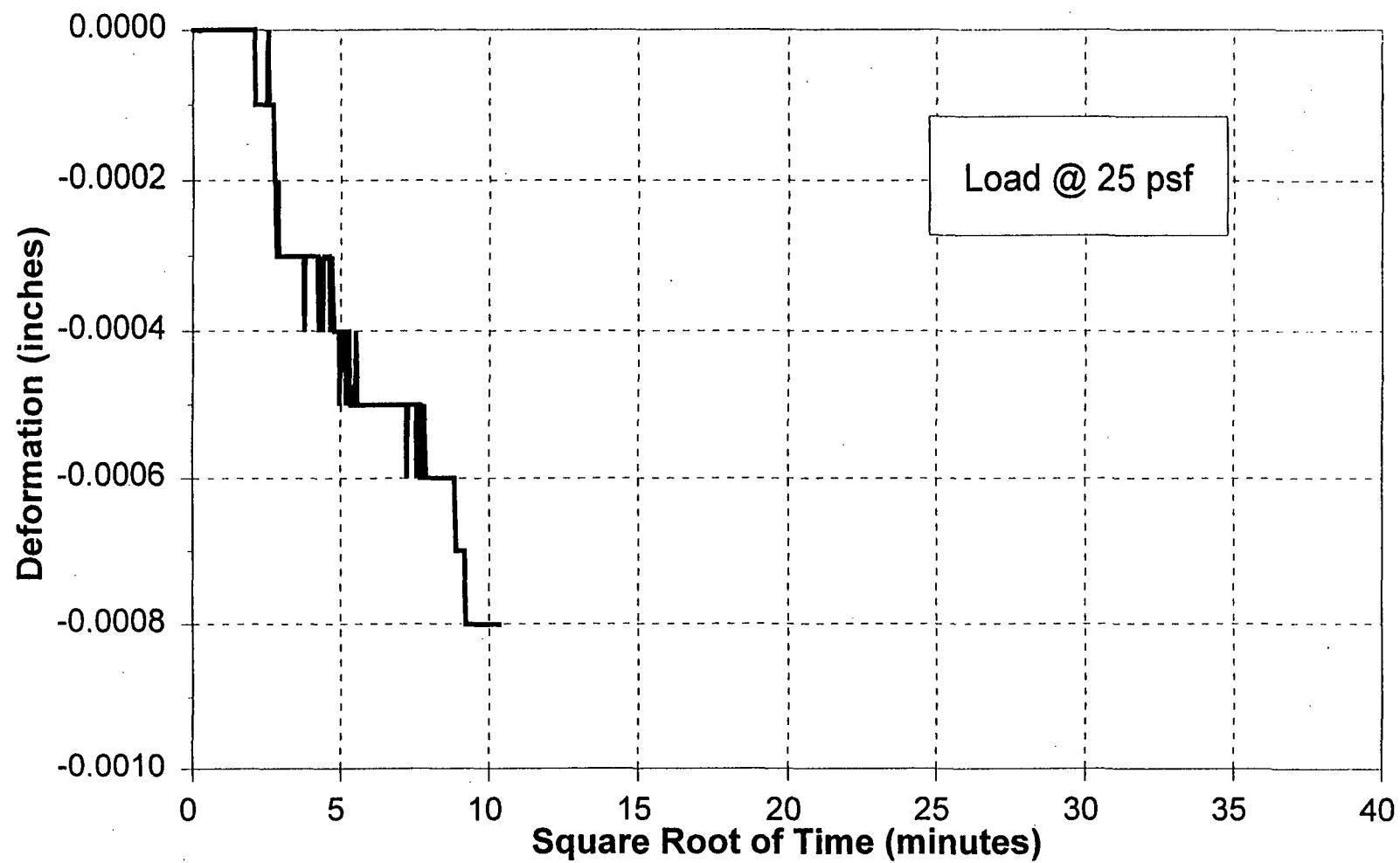
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



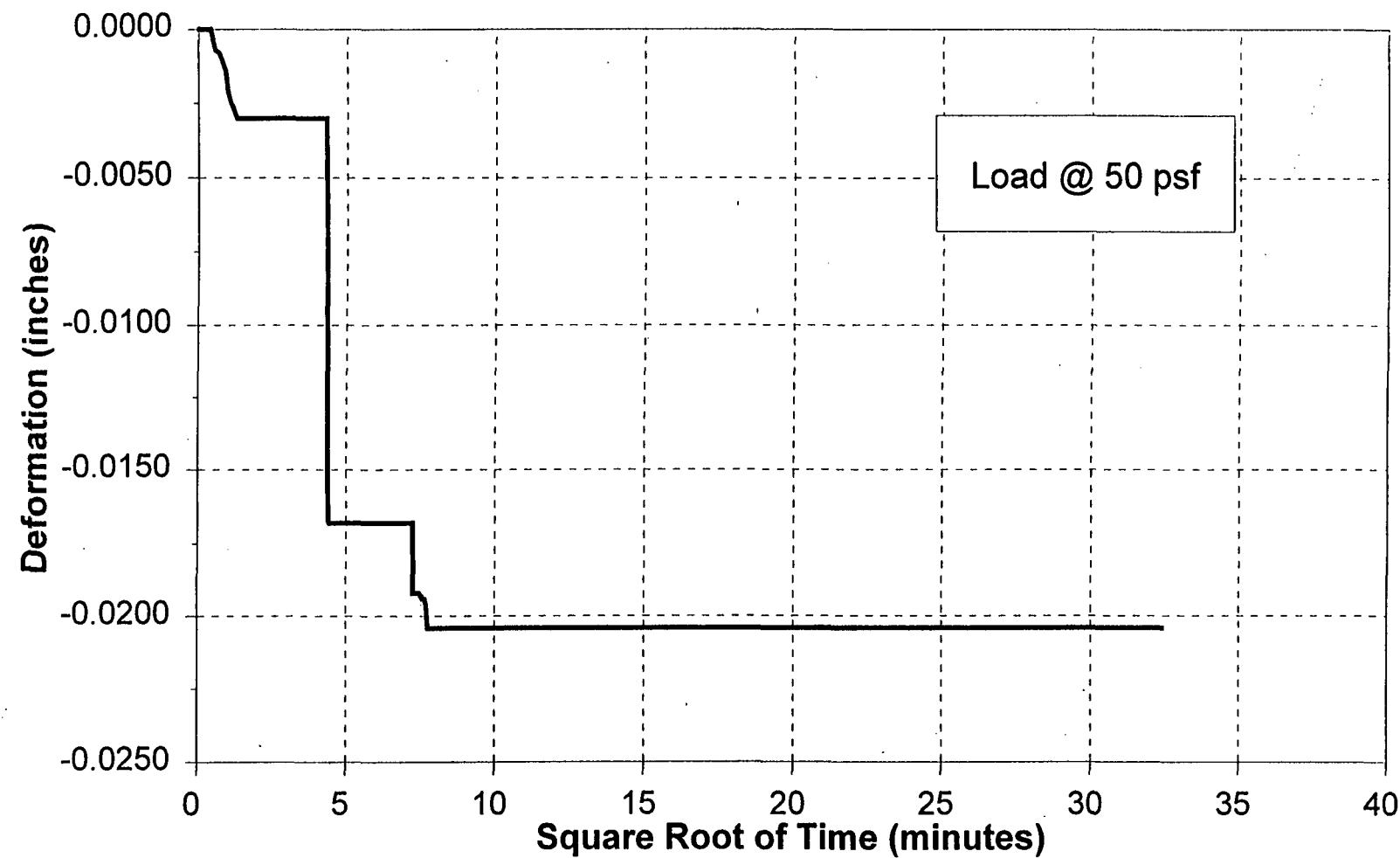
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



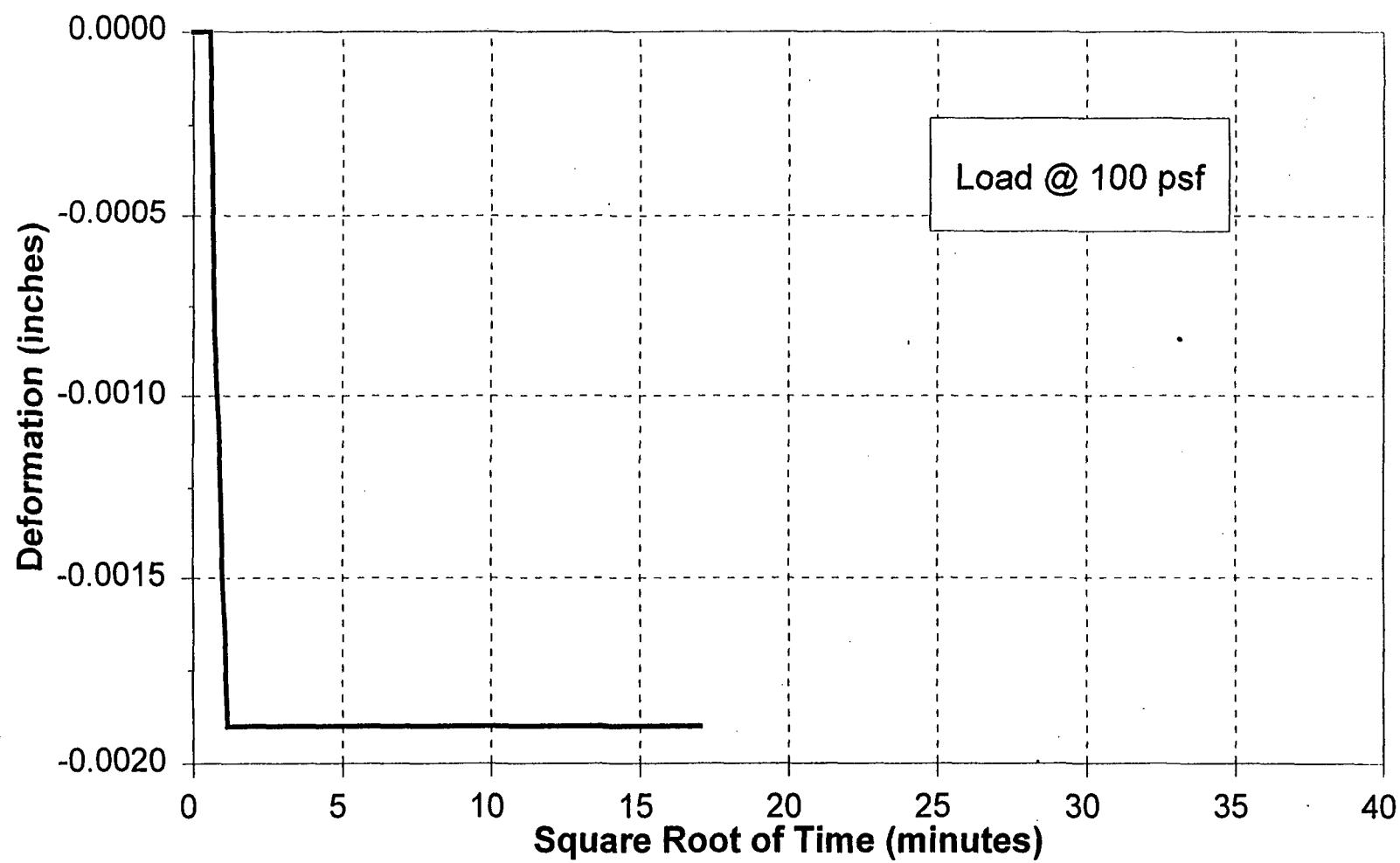
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



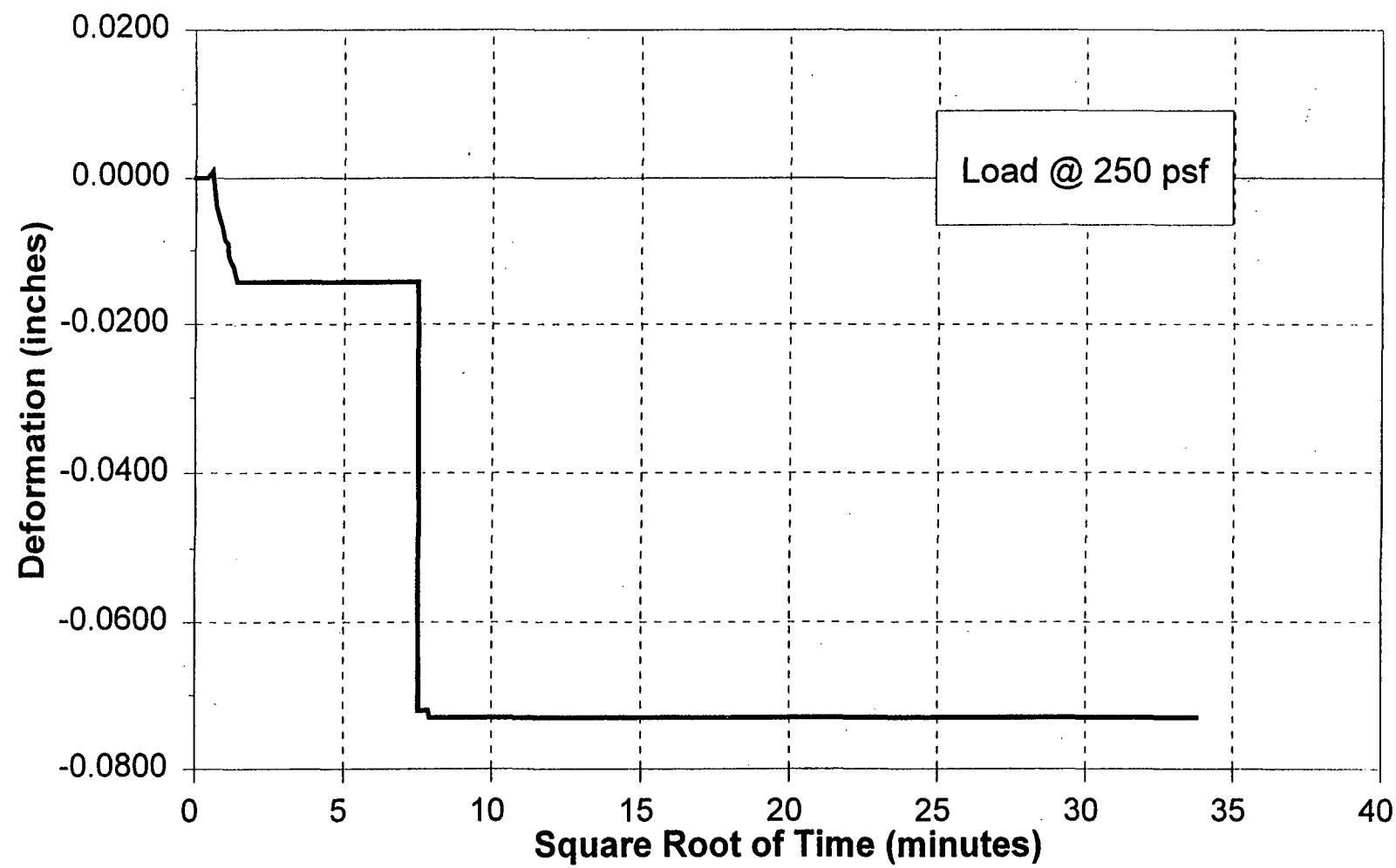
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



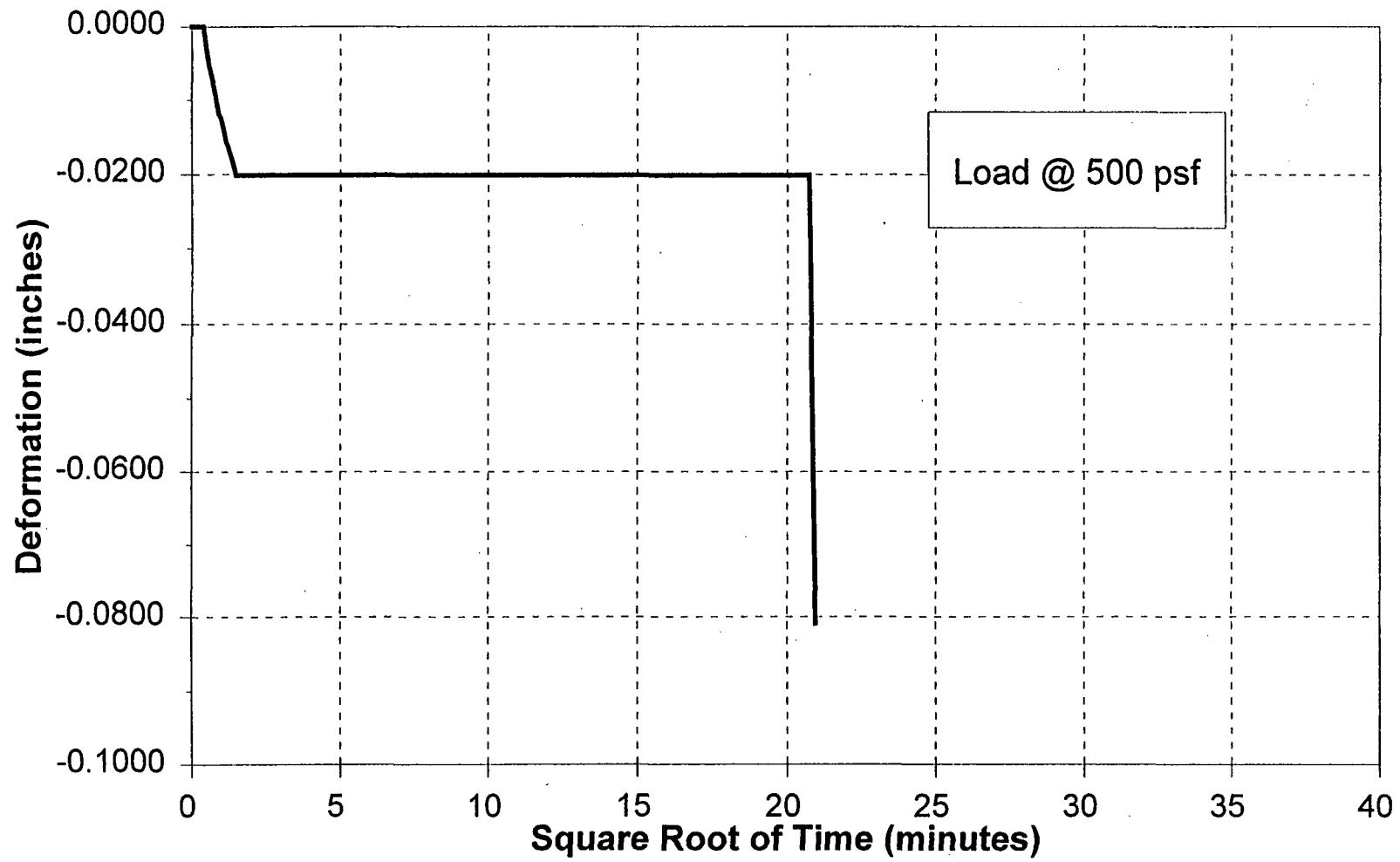
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



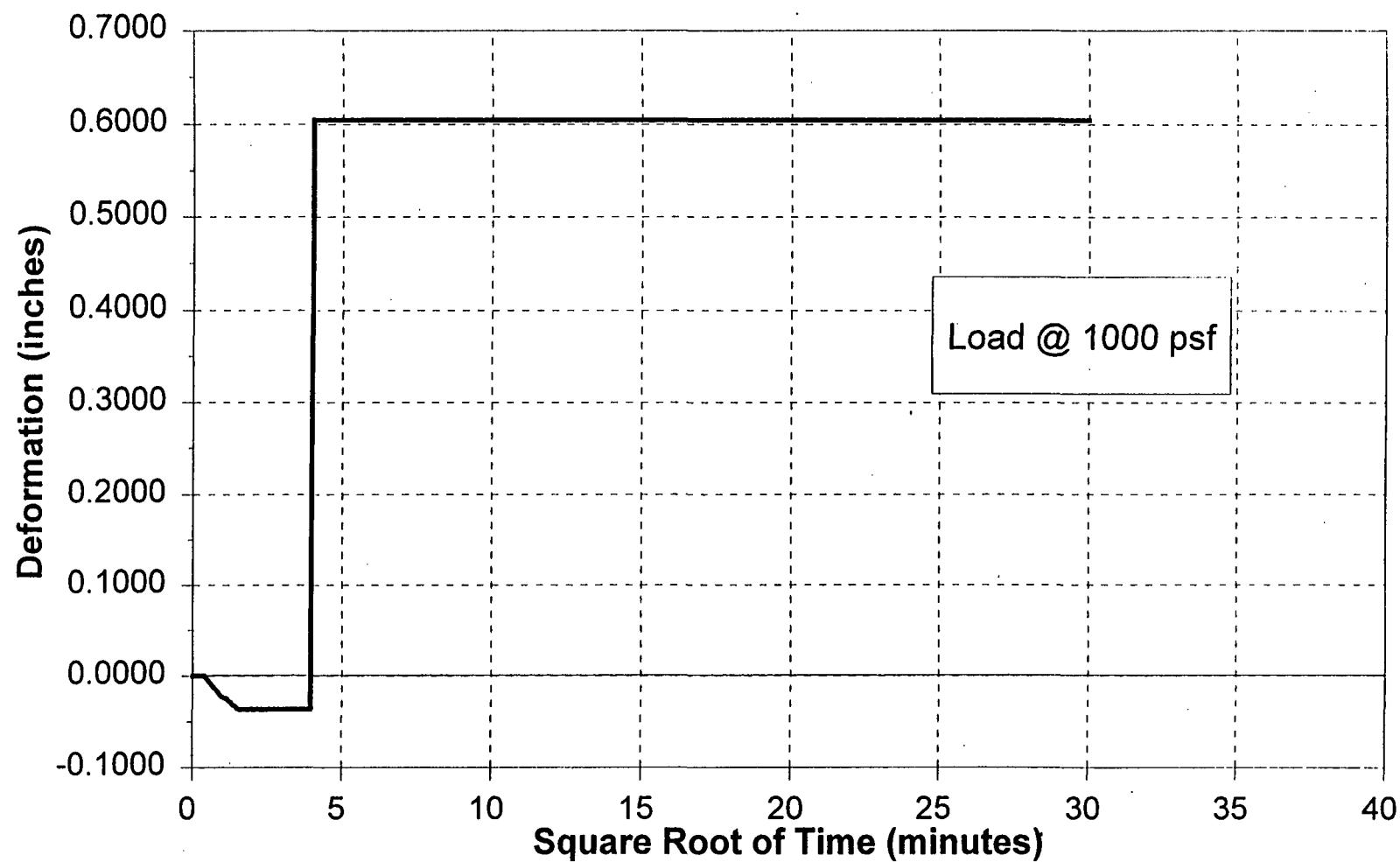
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



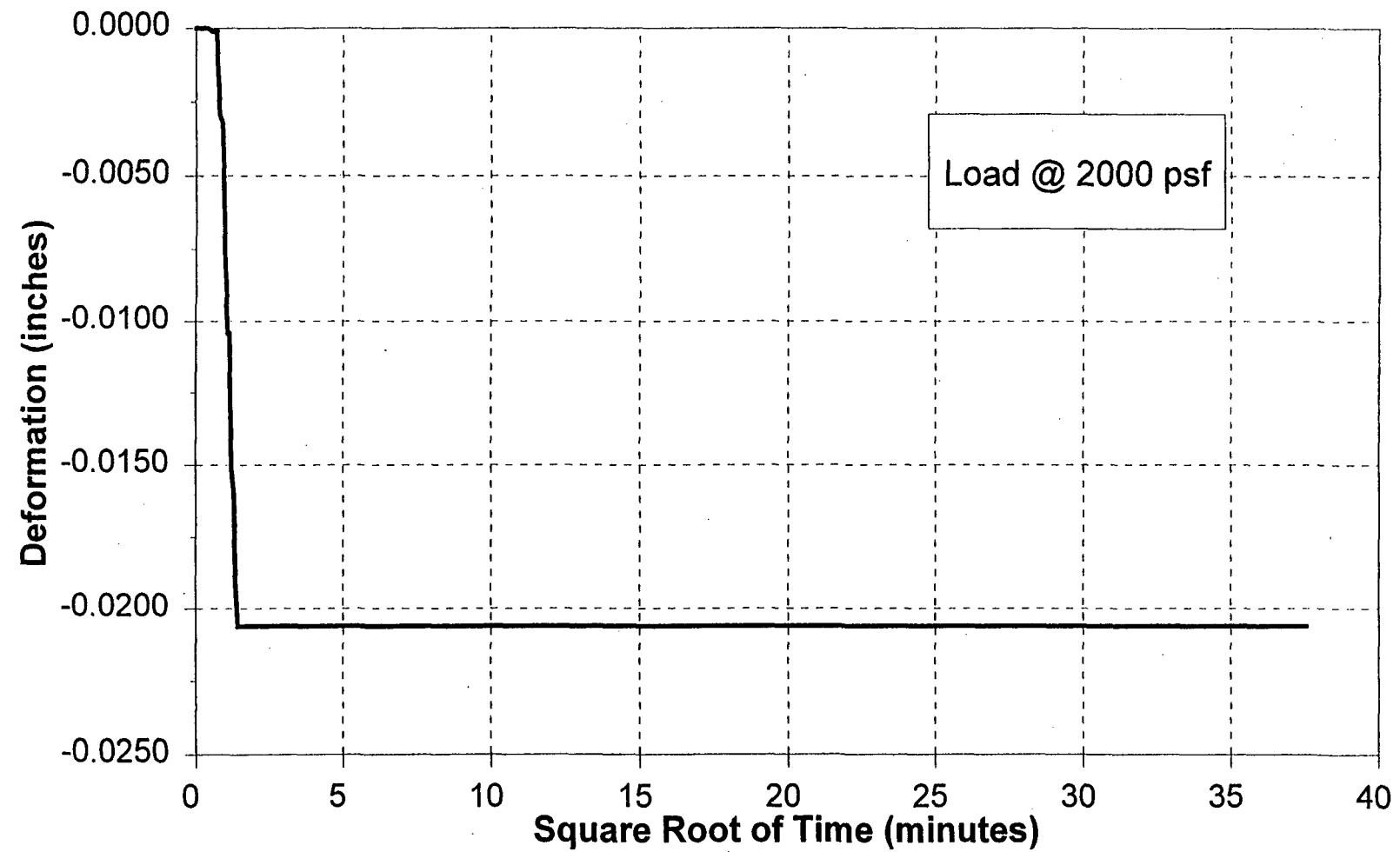
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



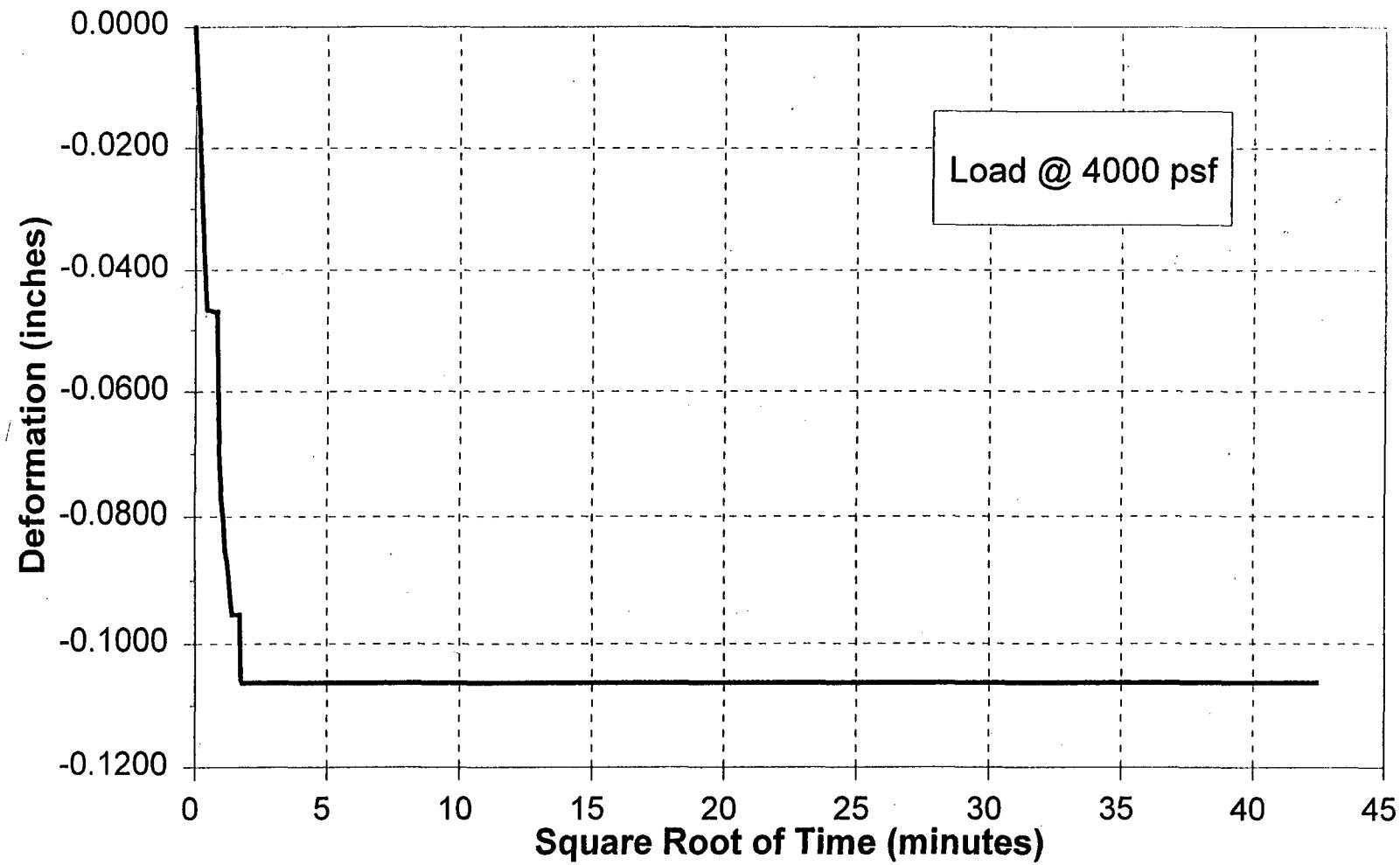
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



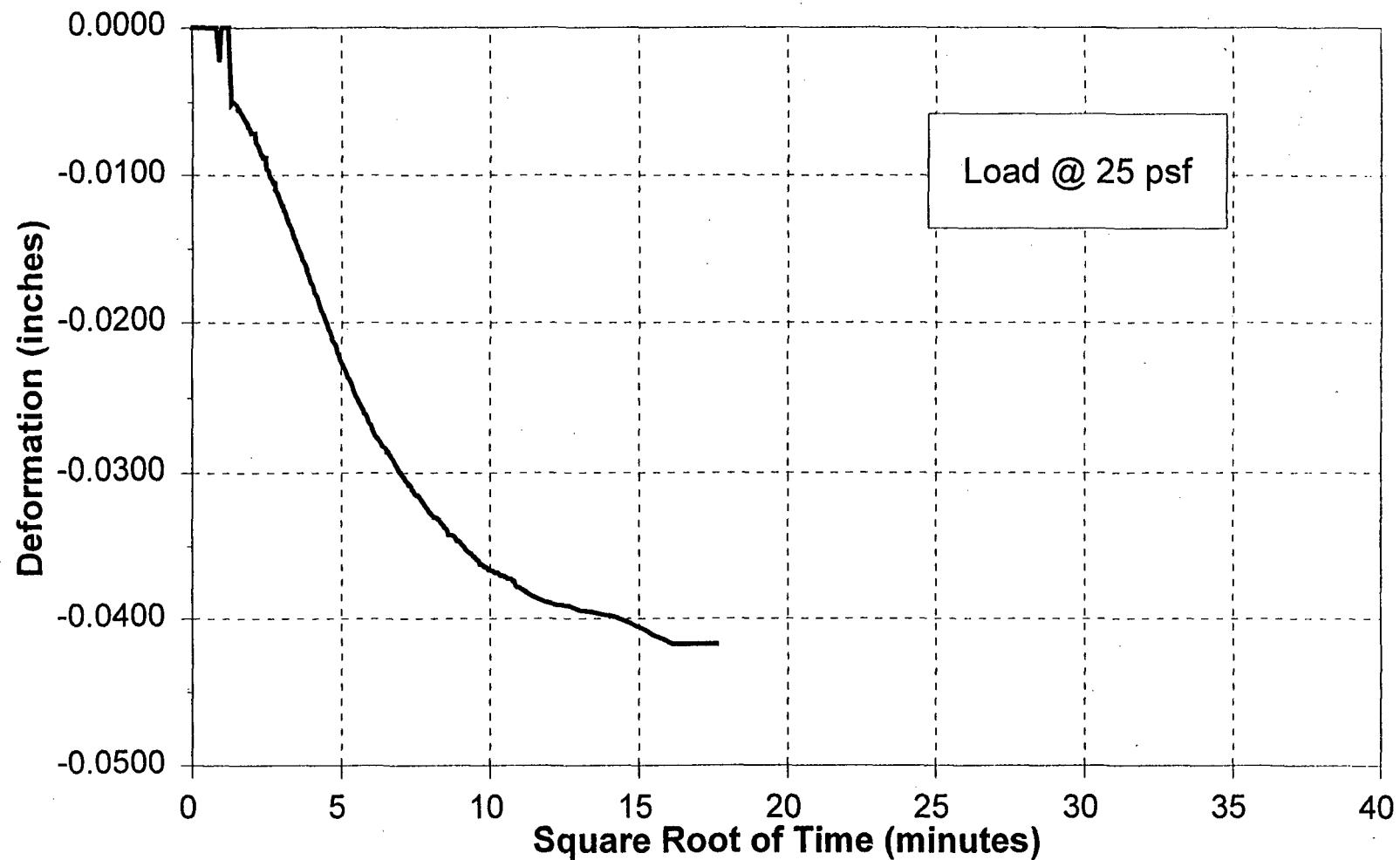
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



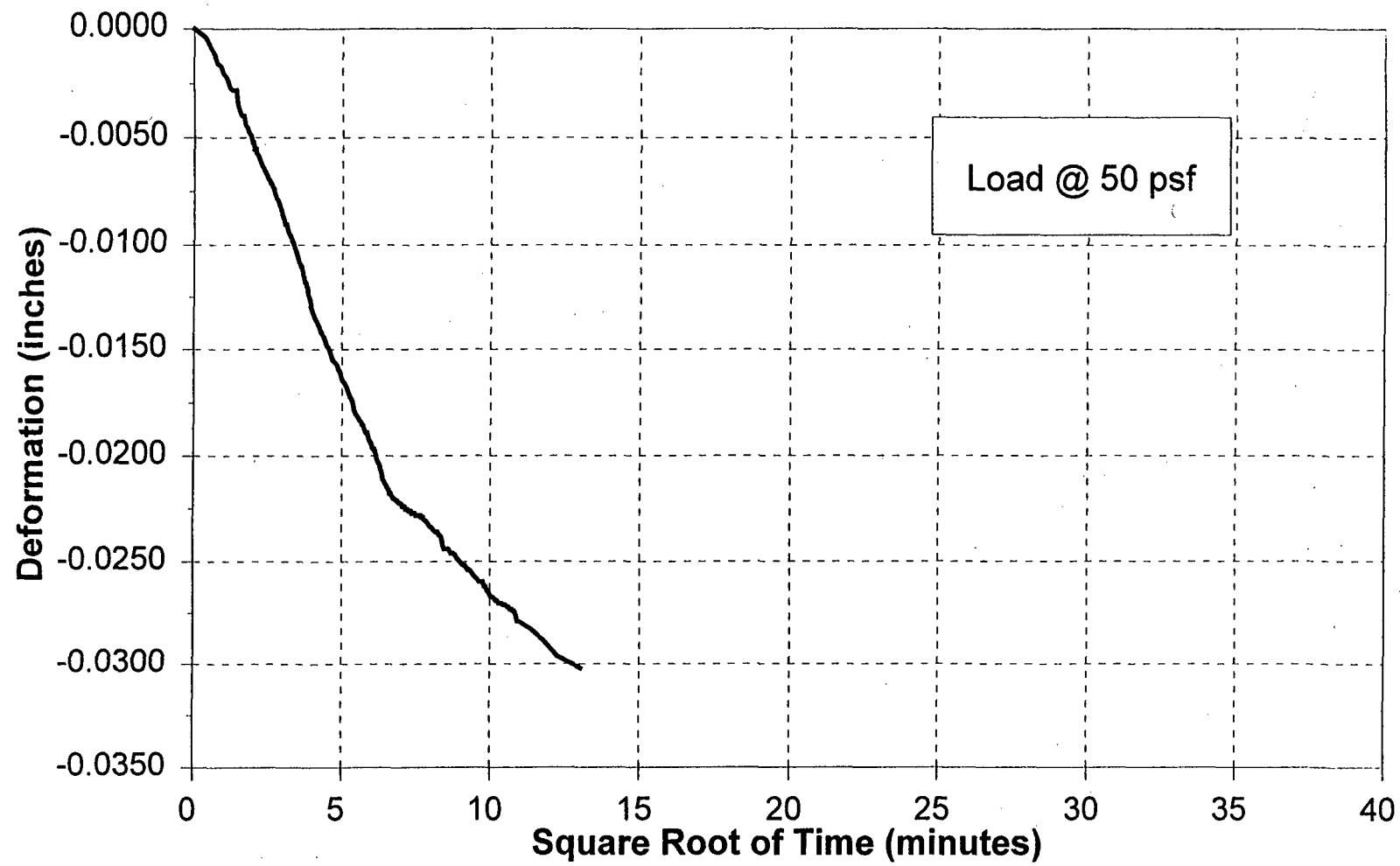
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



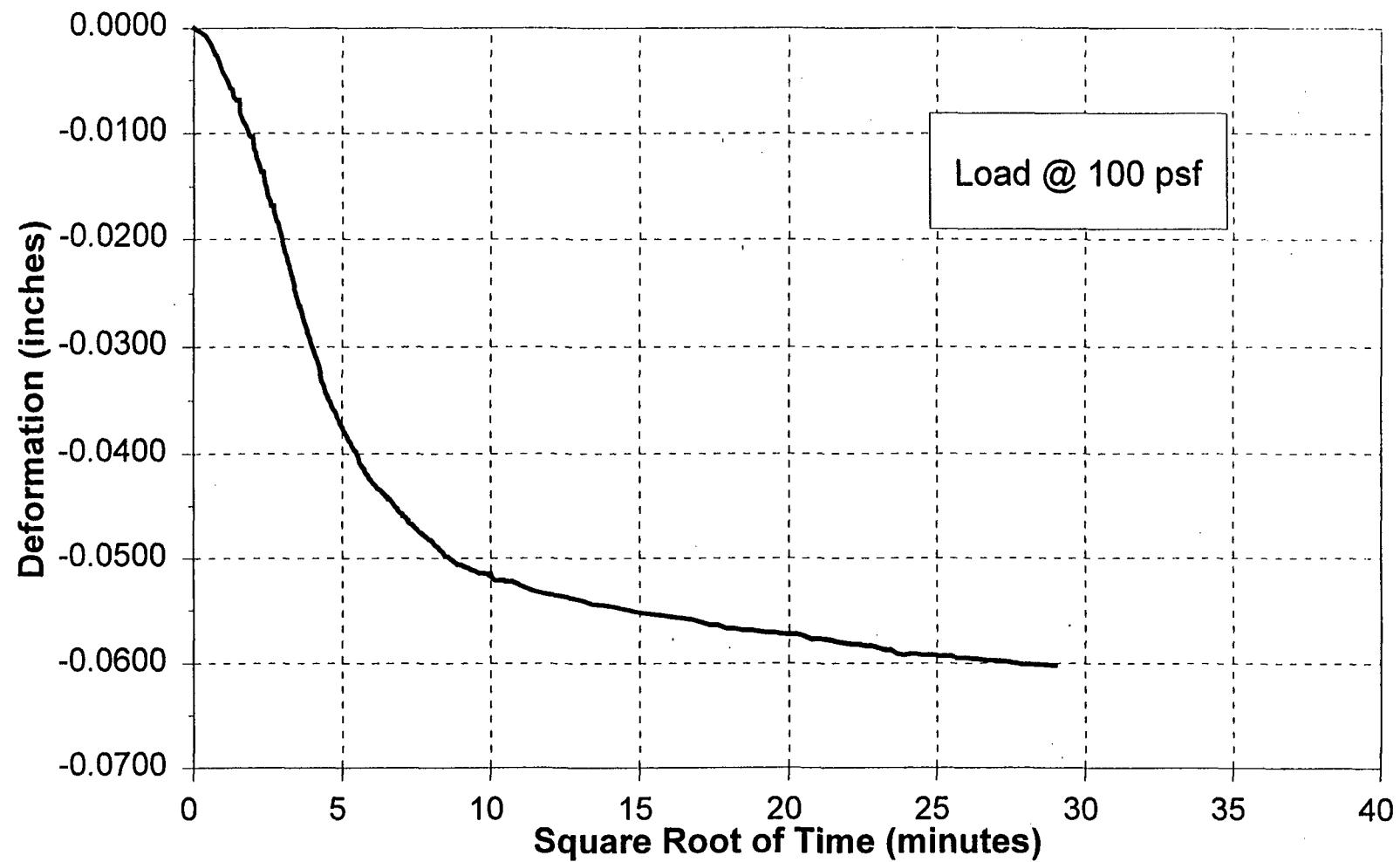
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



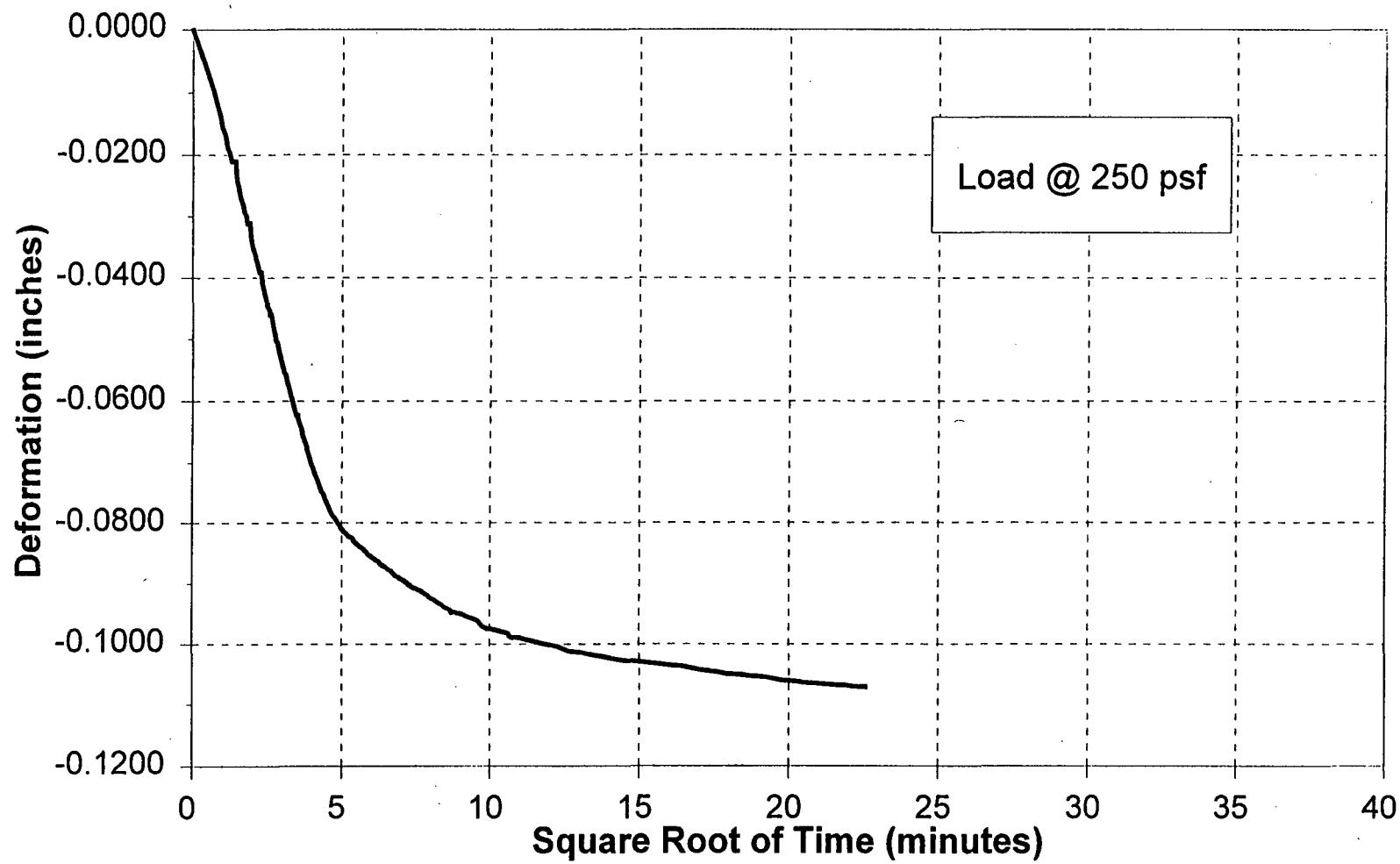
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



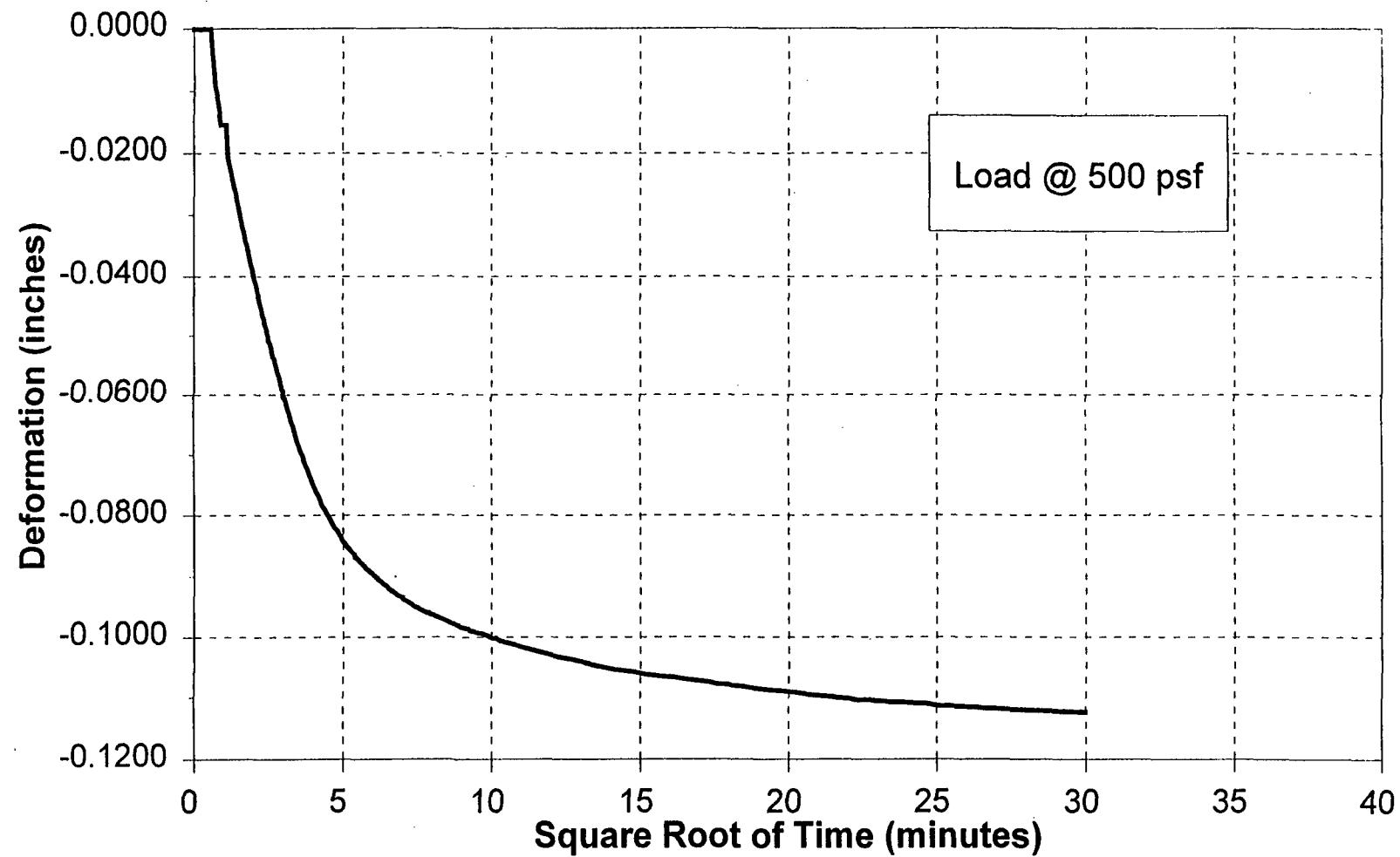
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



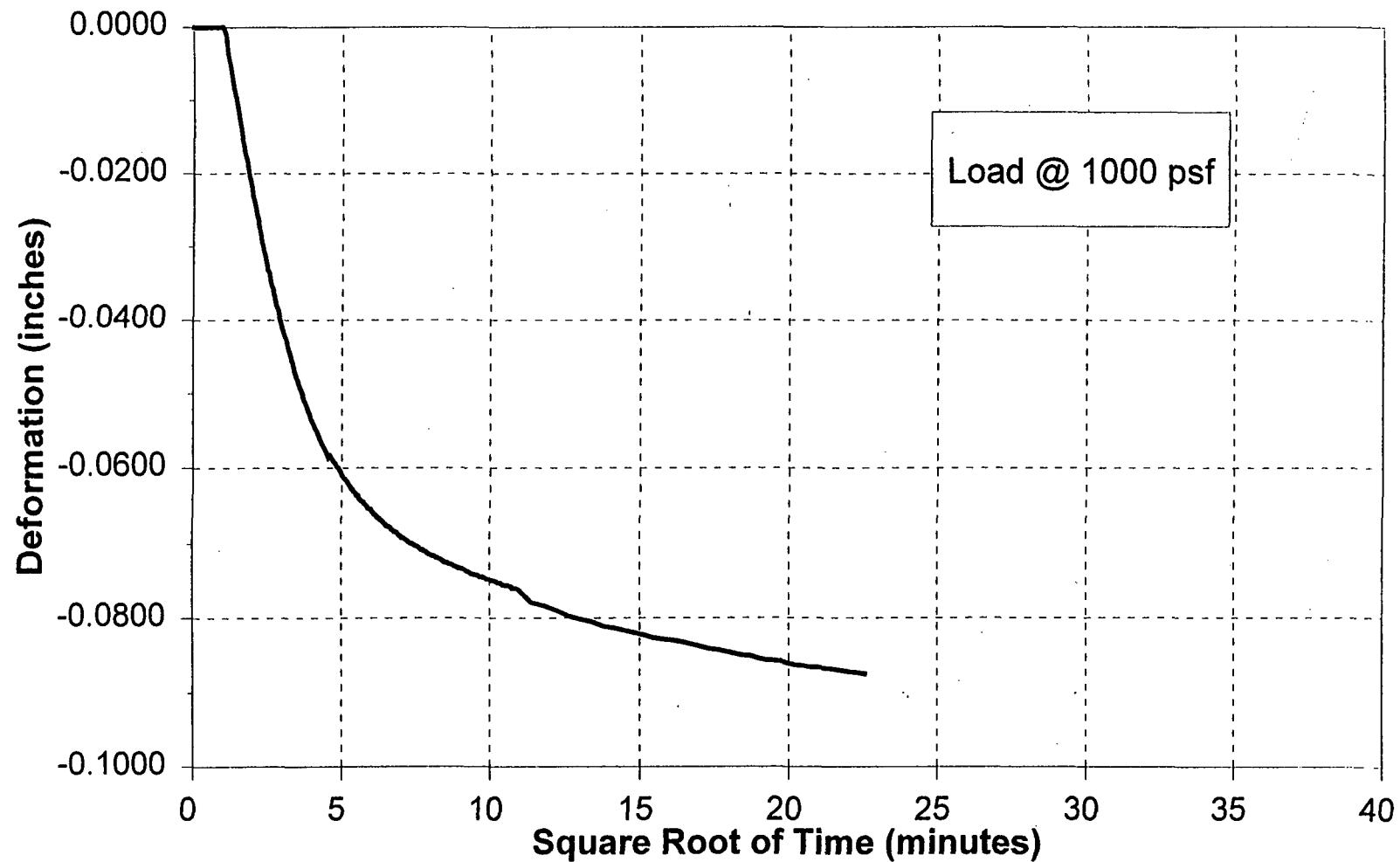
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



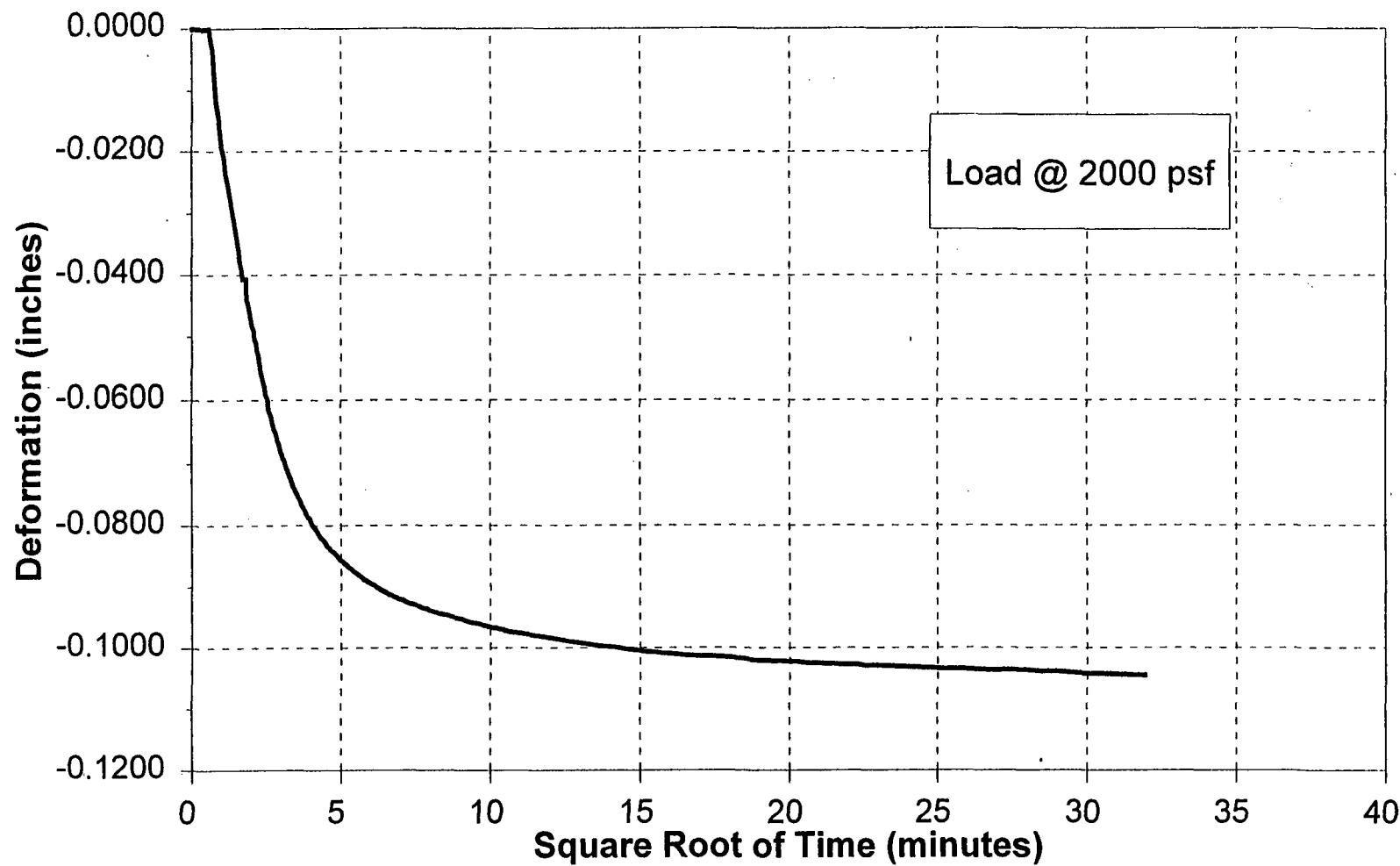
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



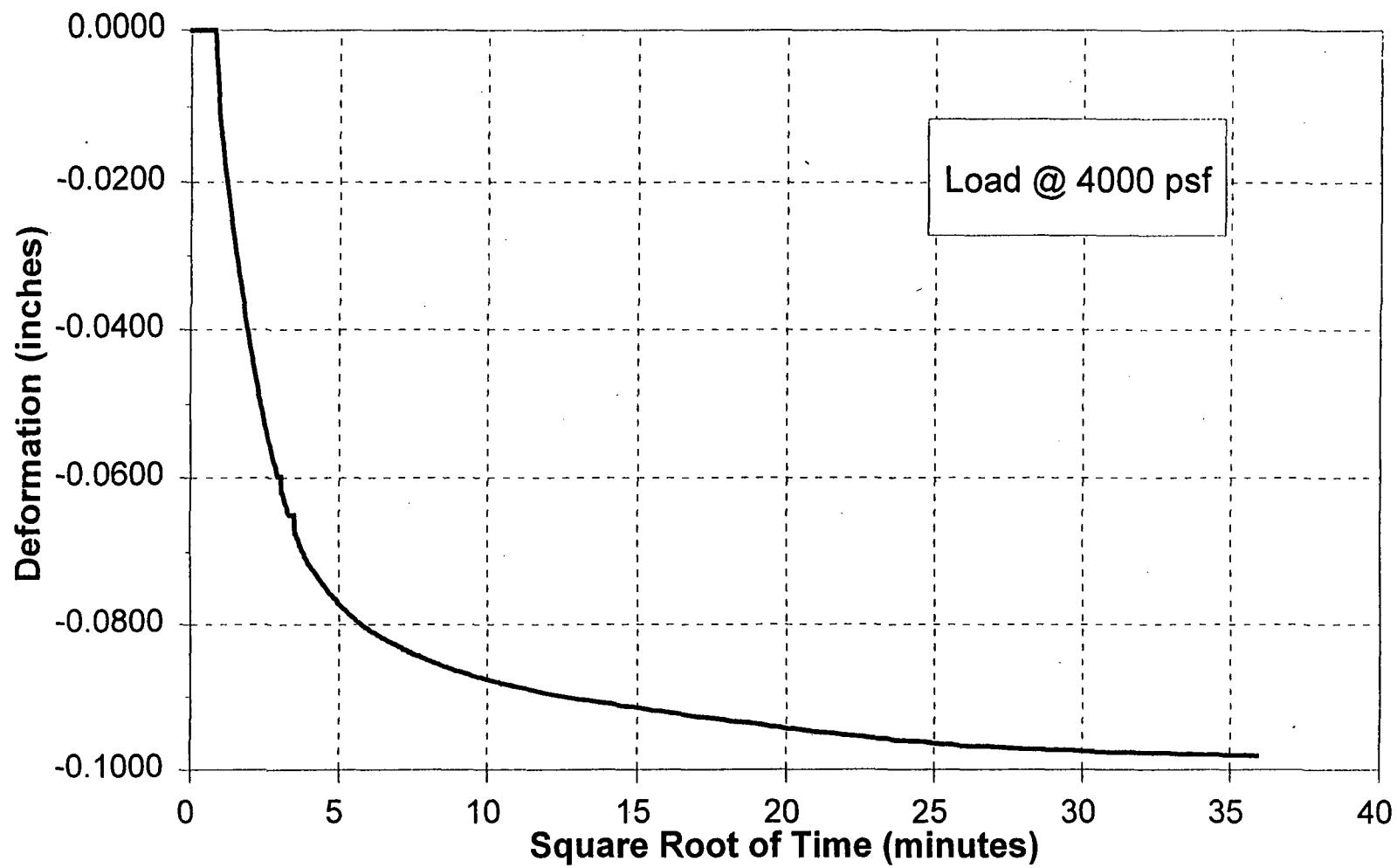
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



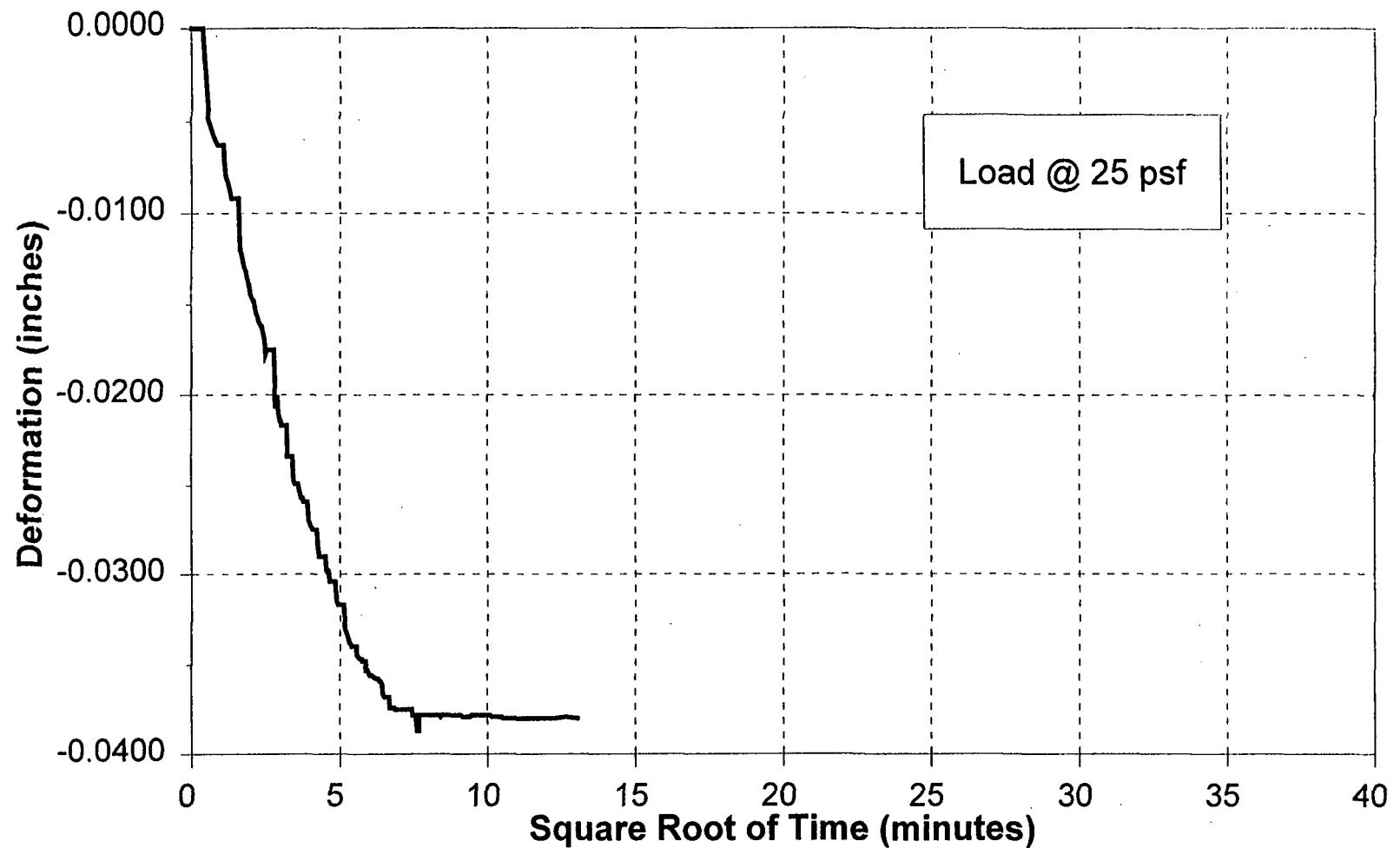
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



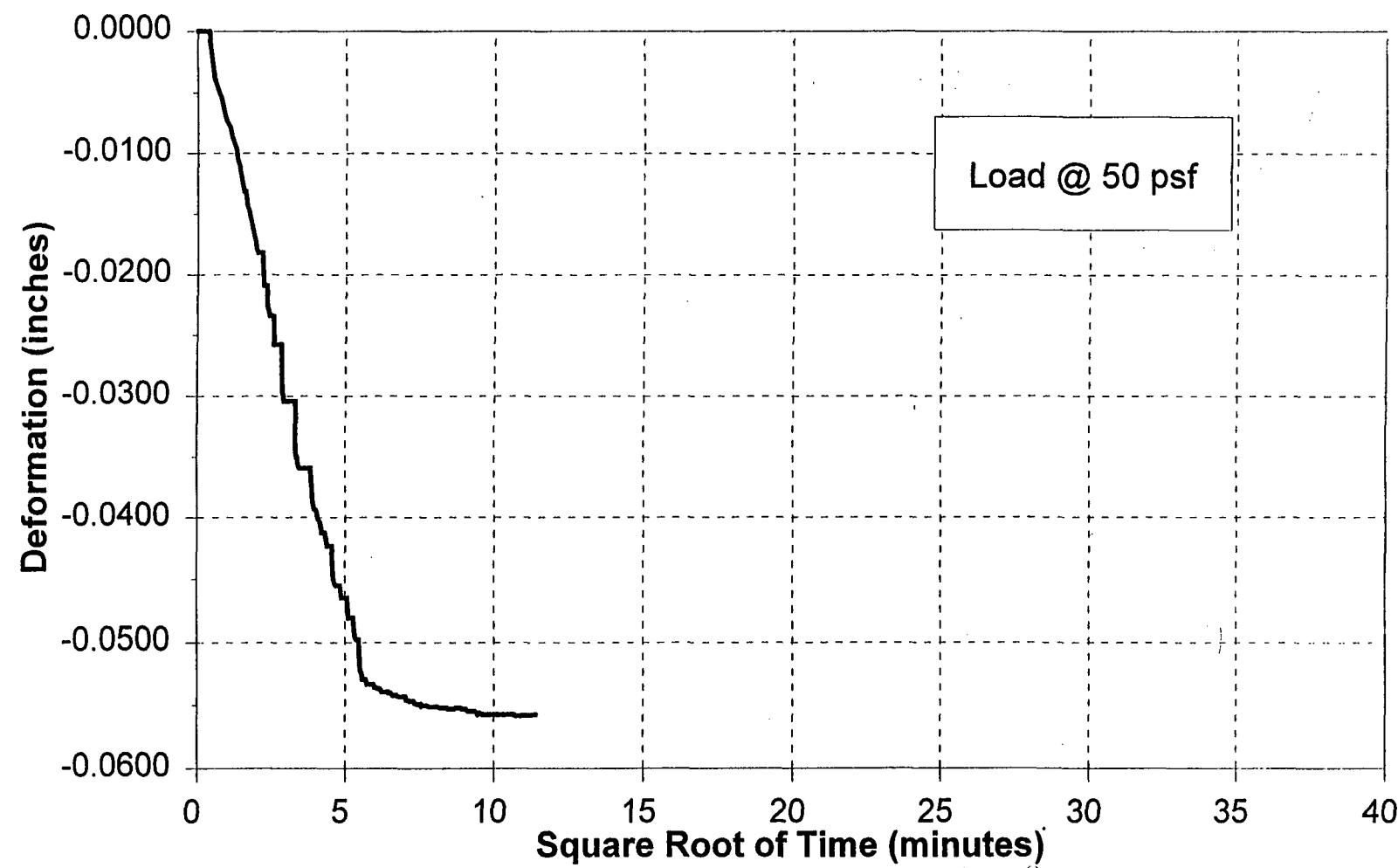
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



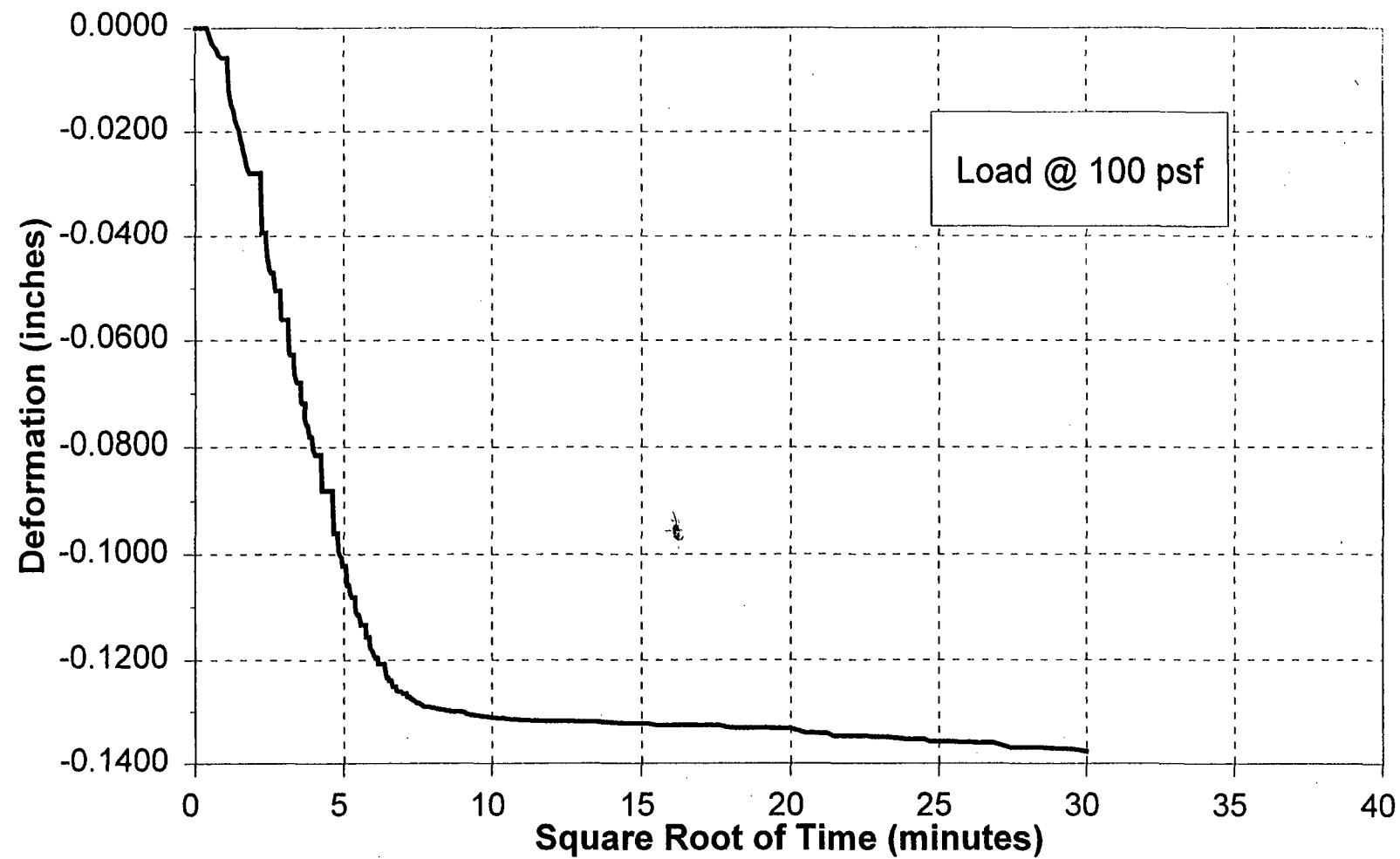
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



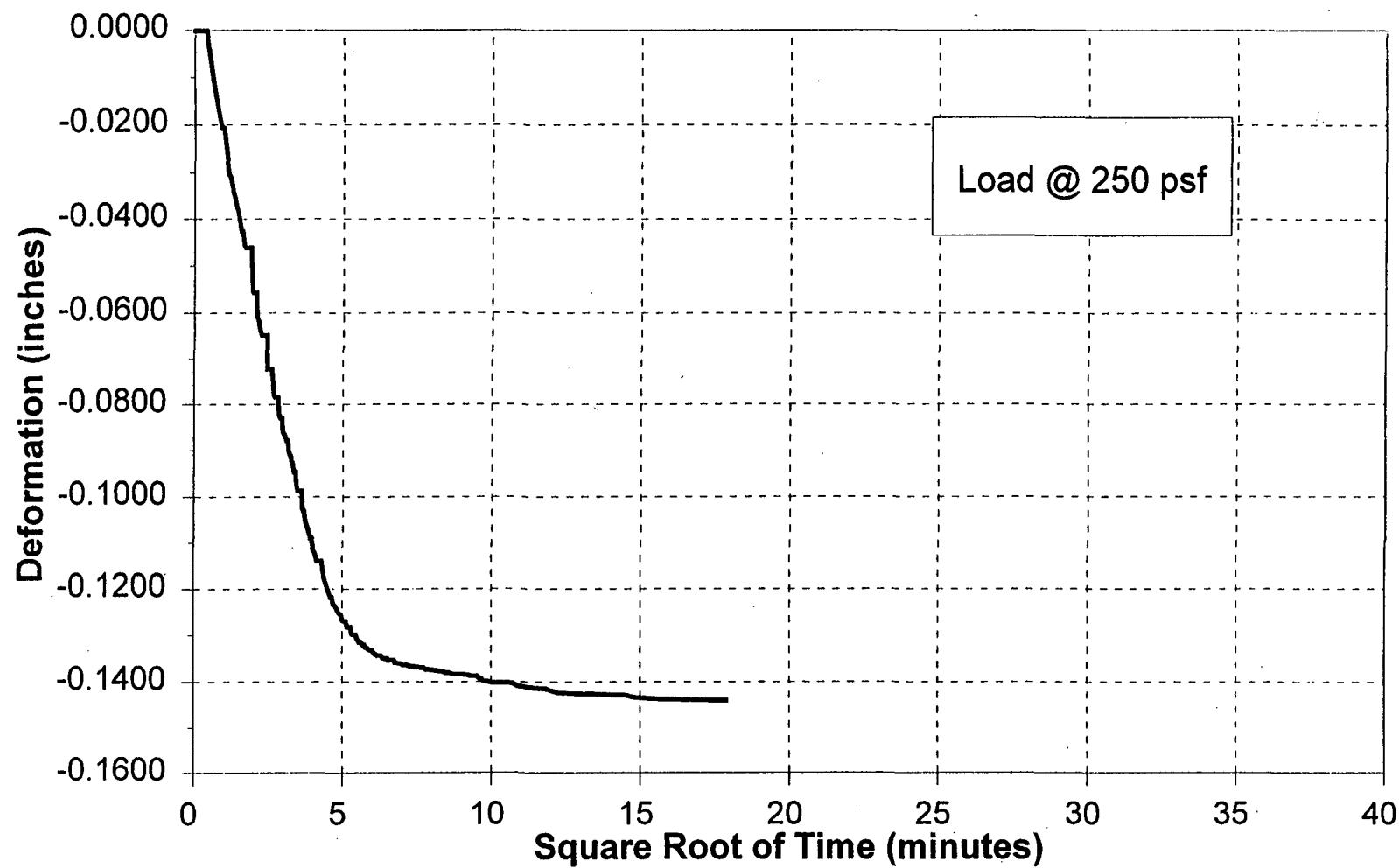
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



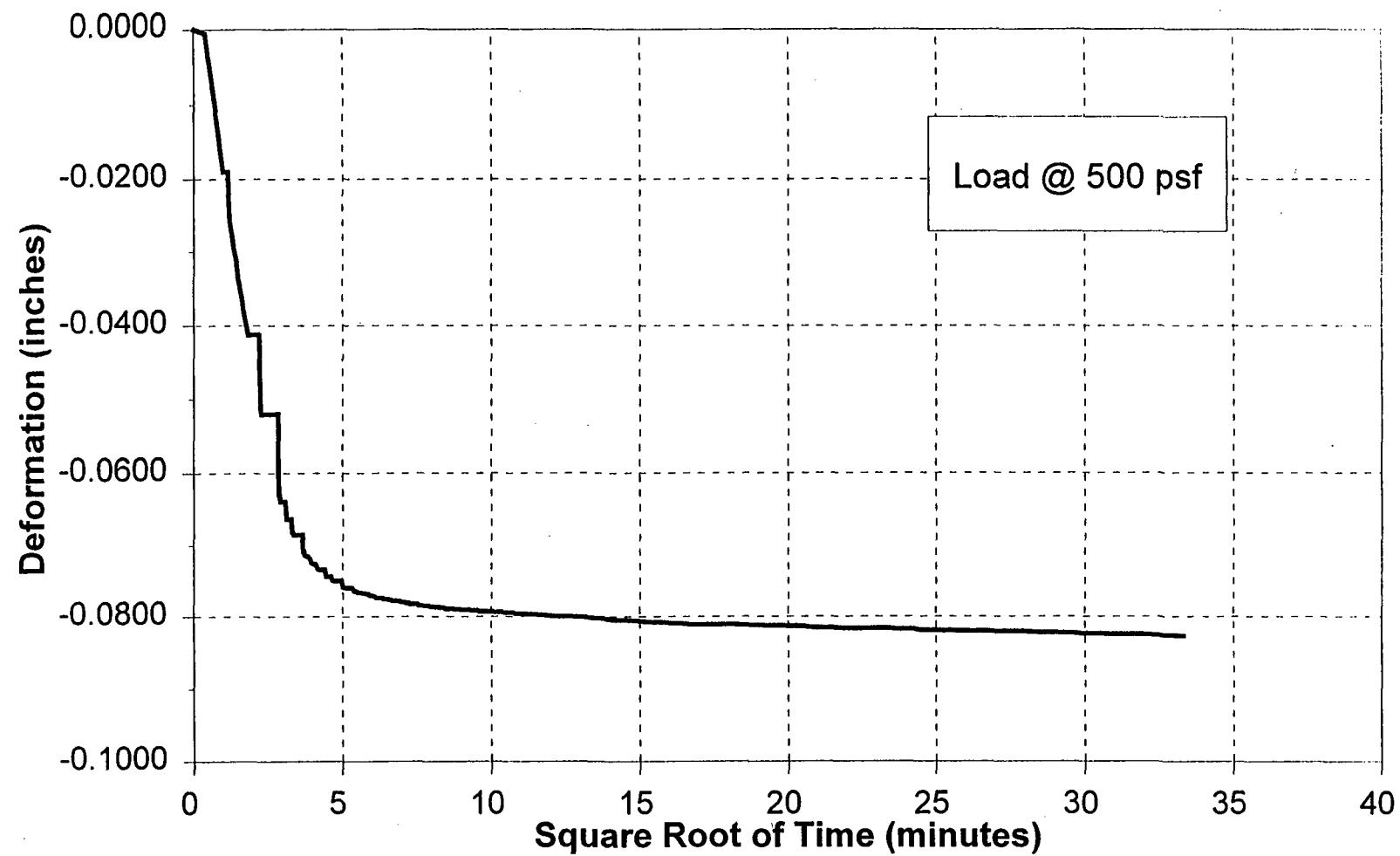
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



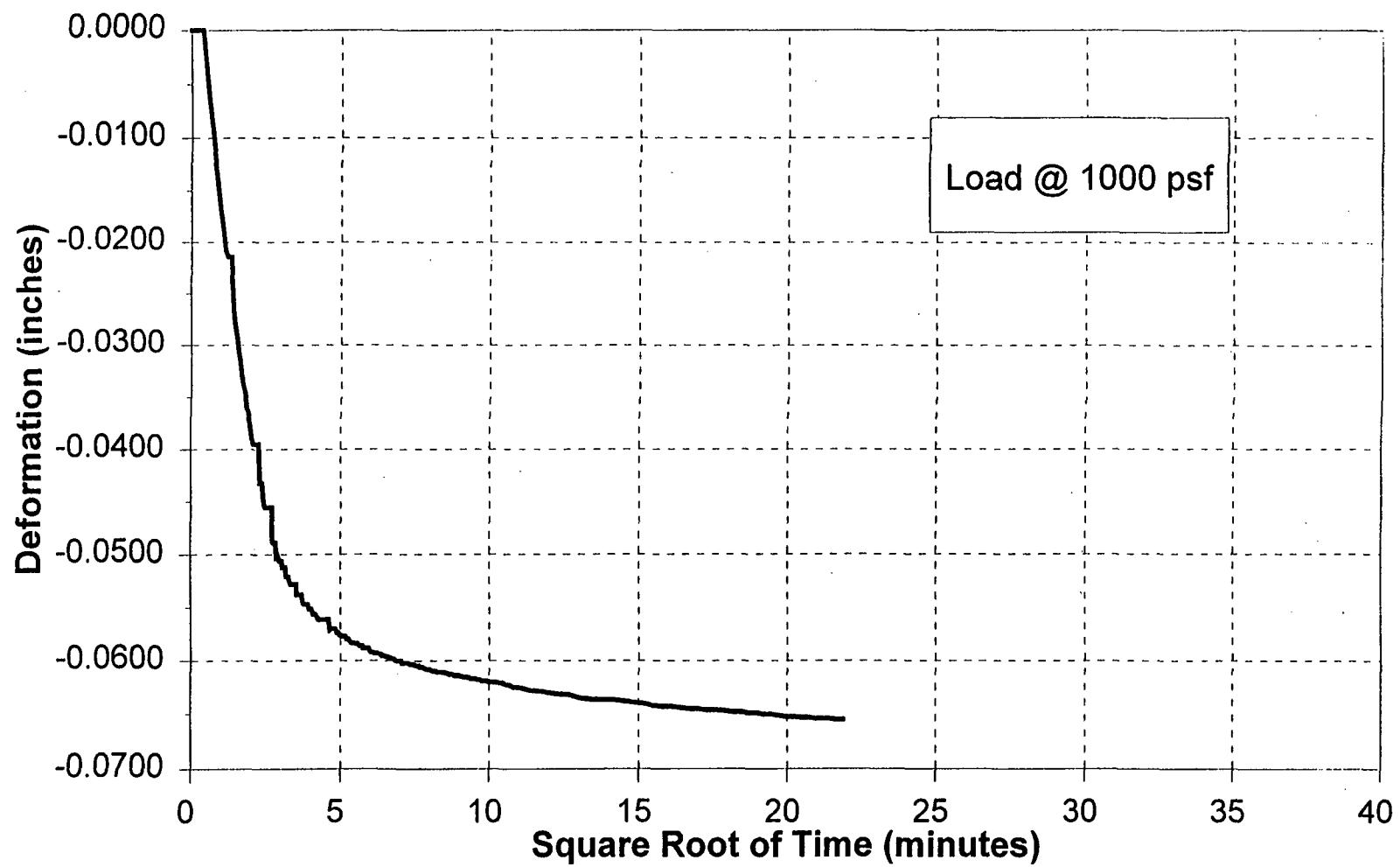
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



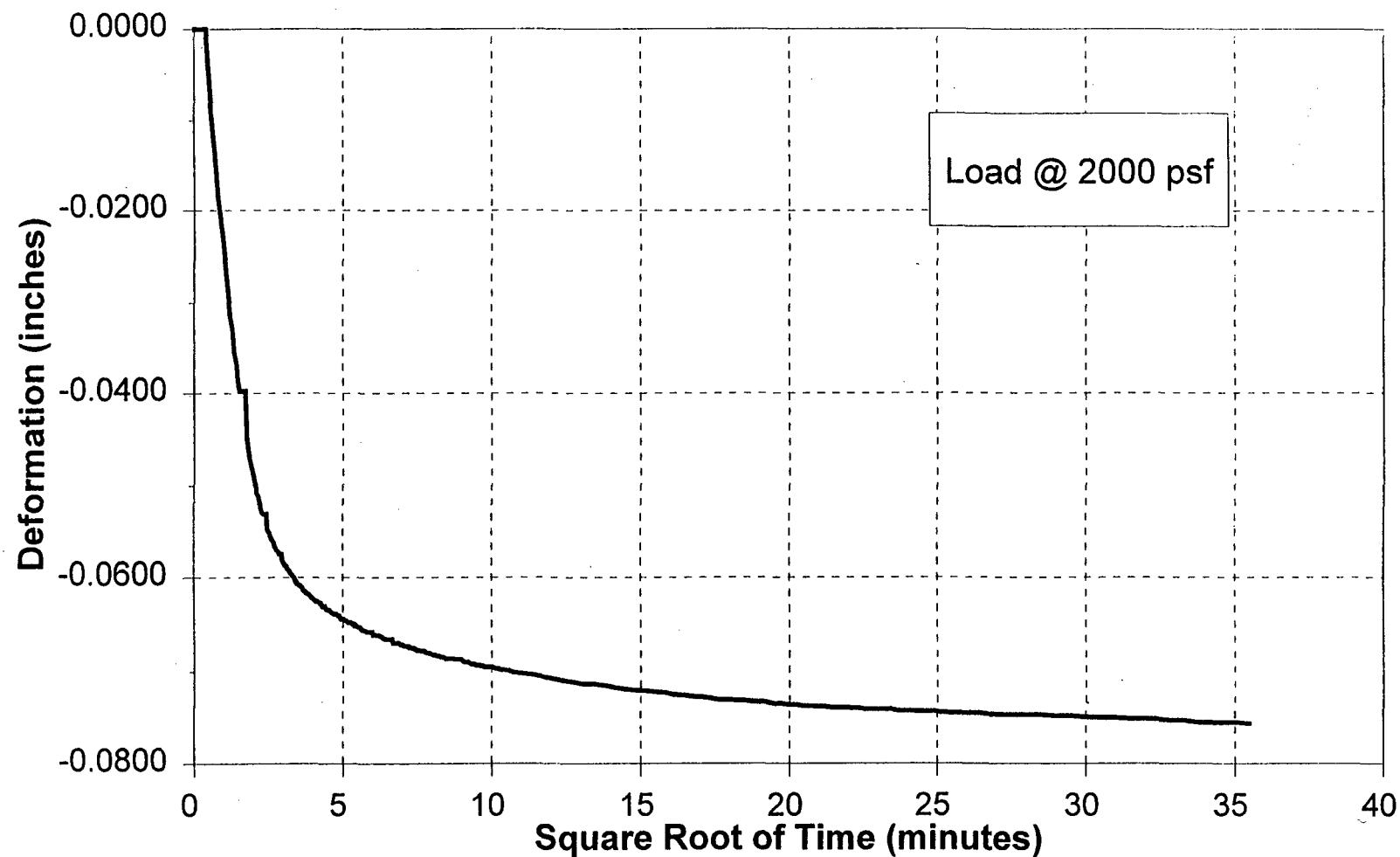
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



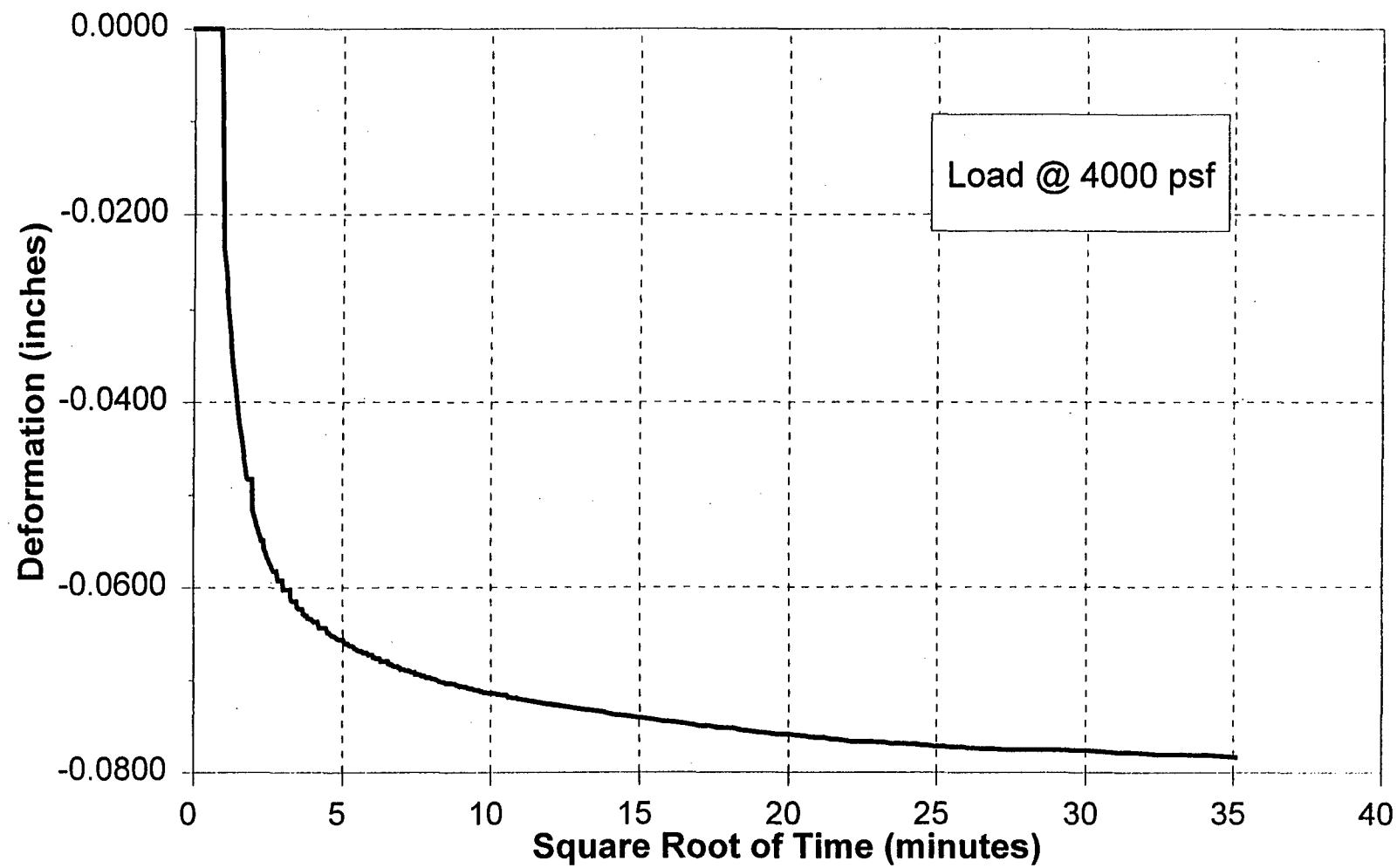
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



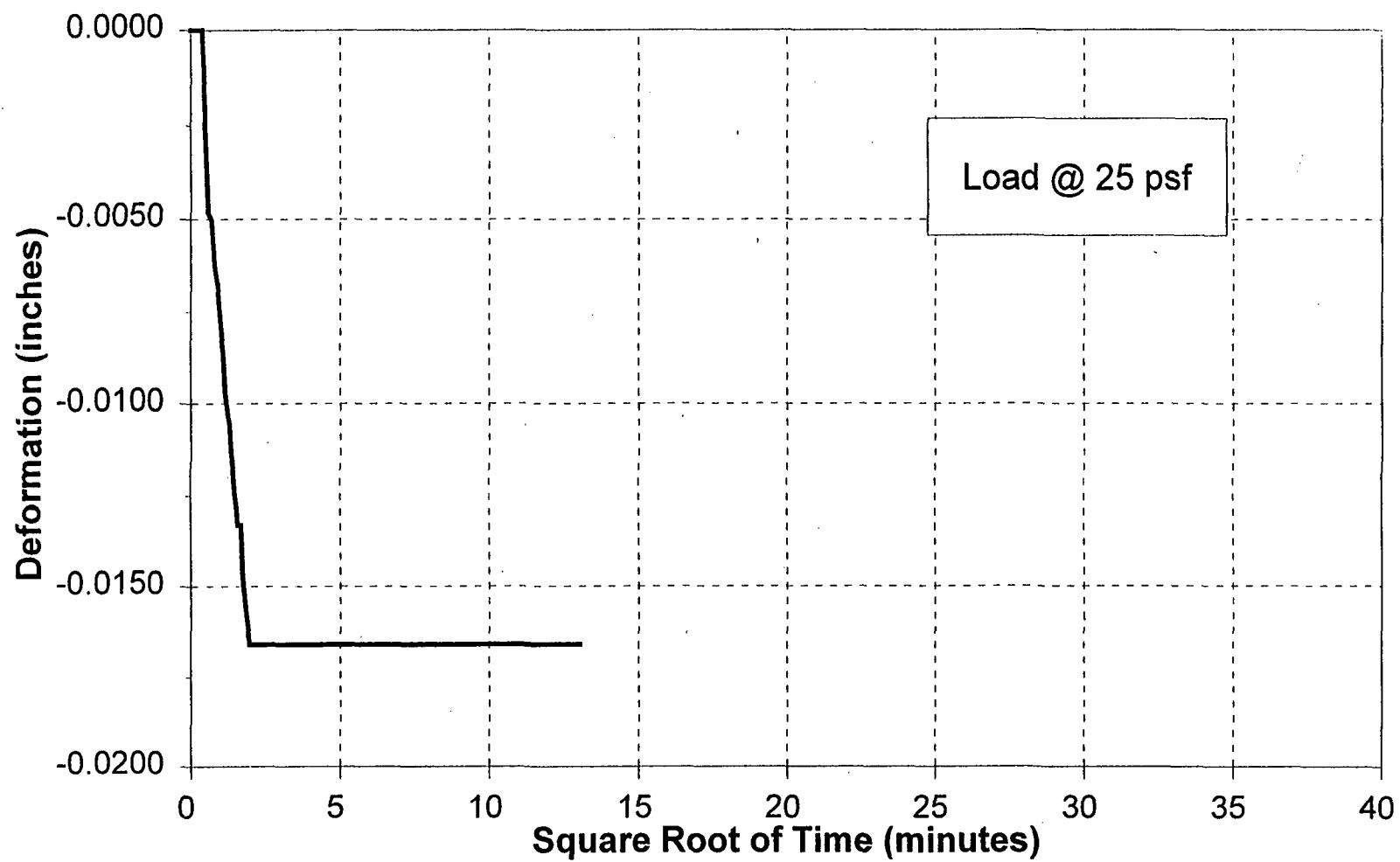
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



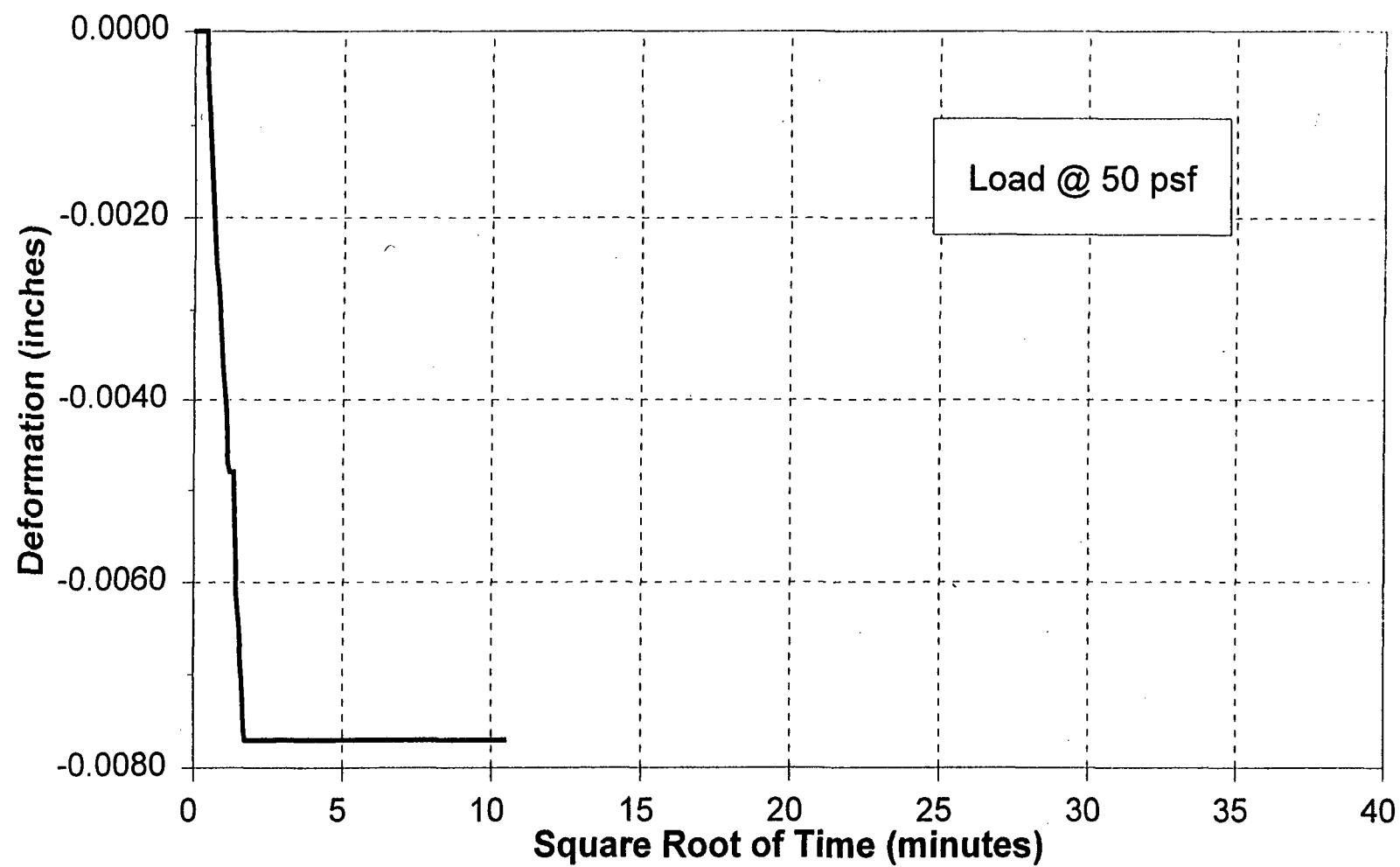
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



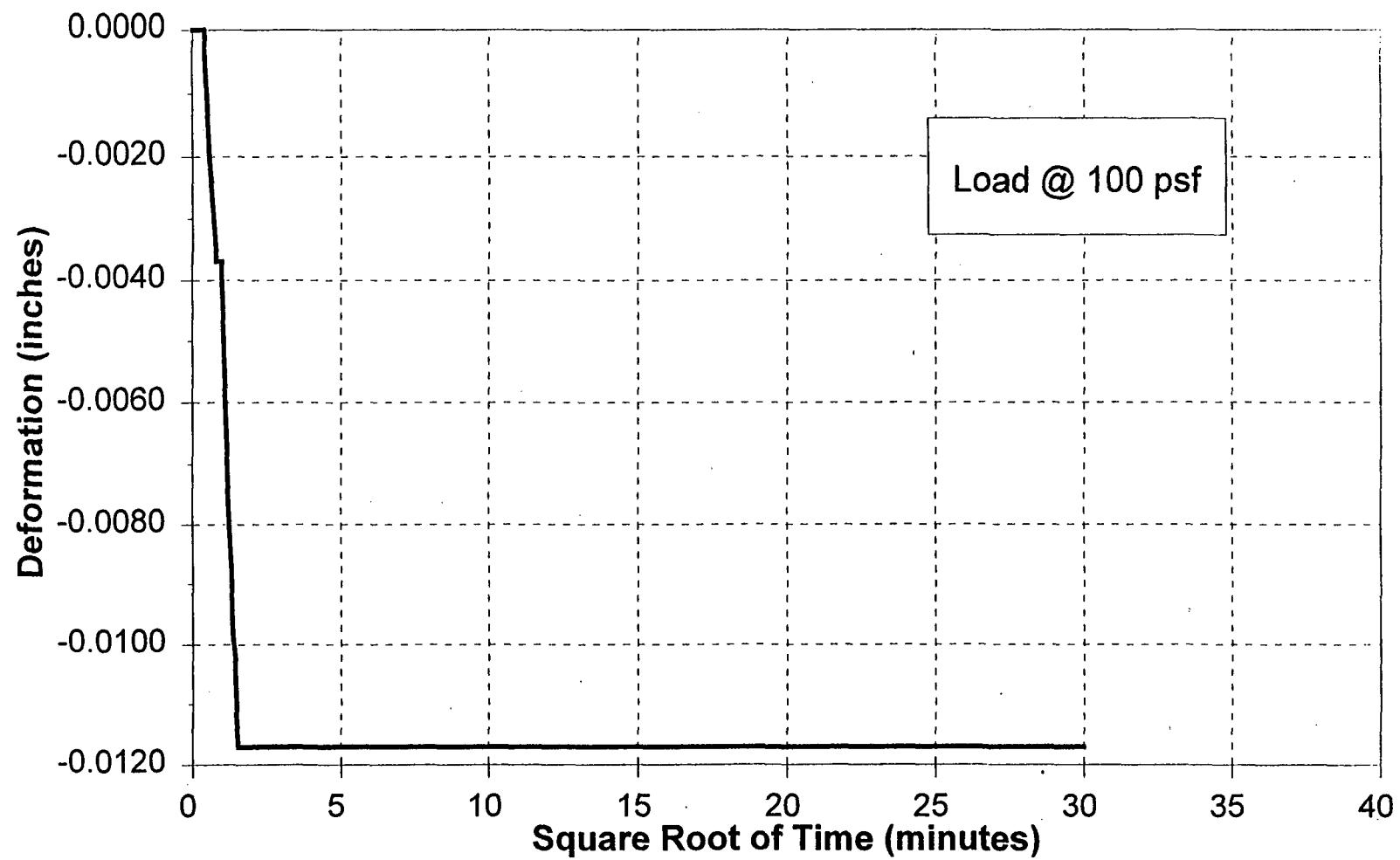
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



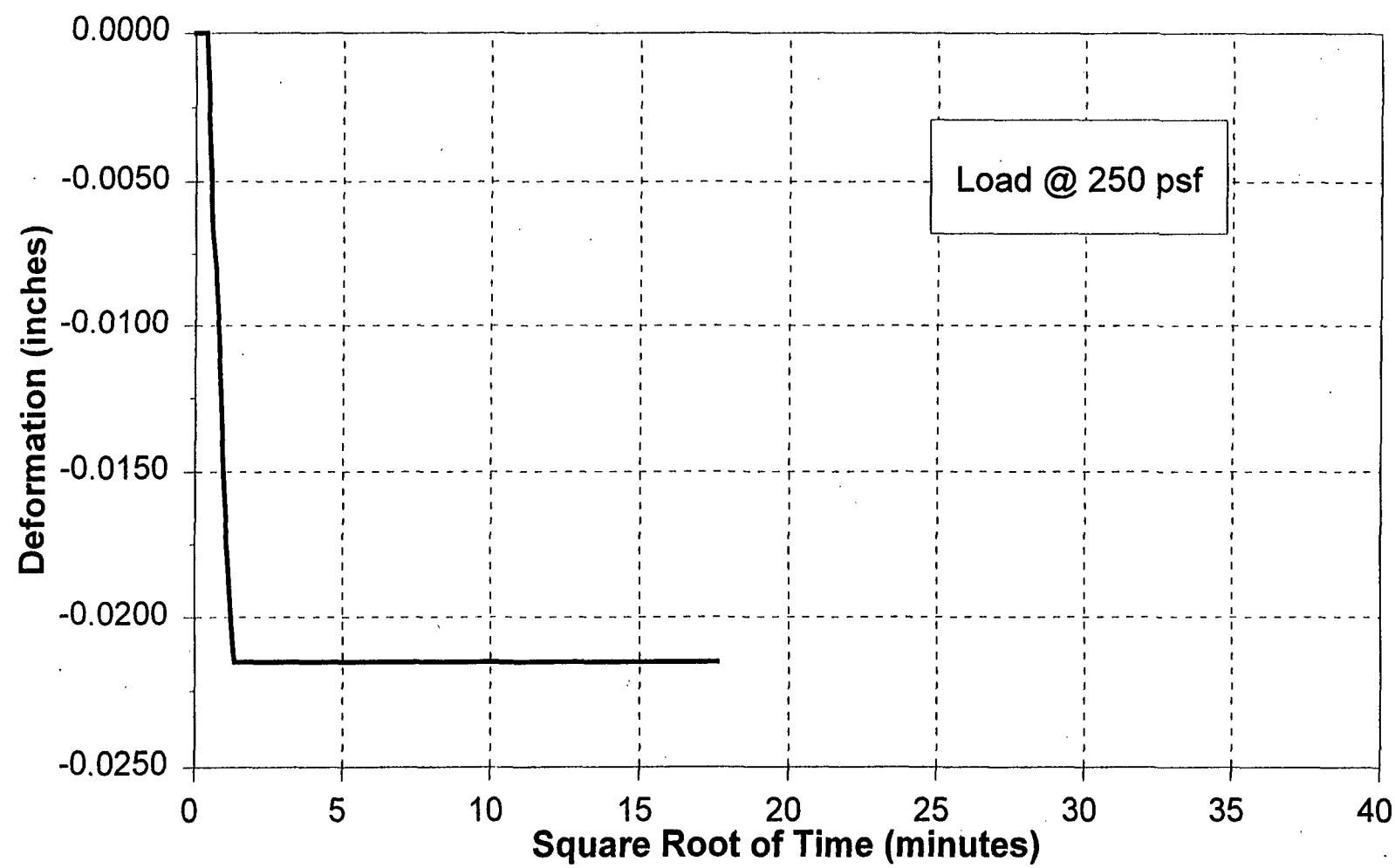
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



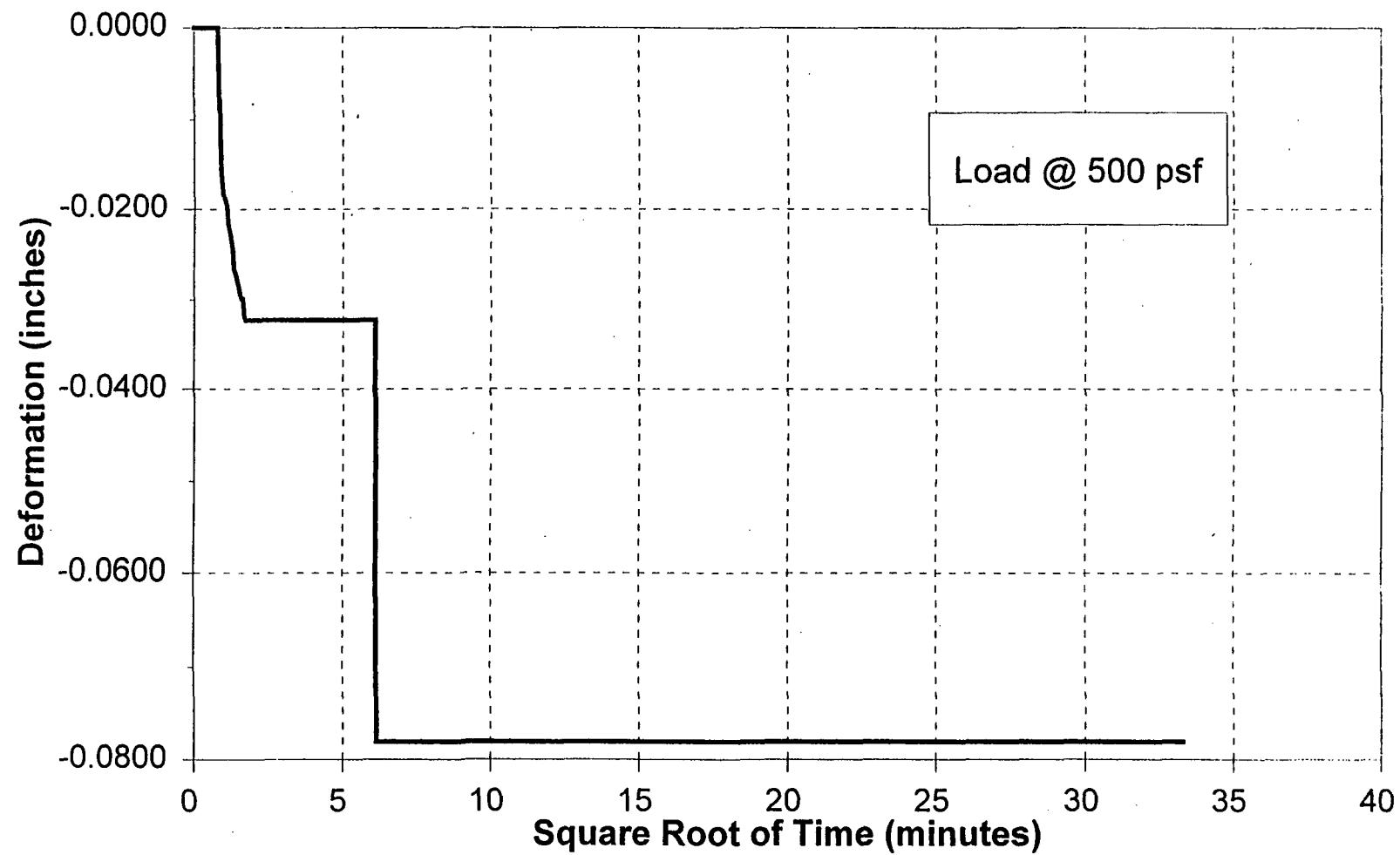
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet

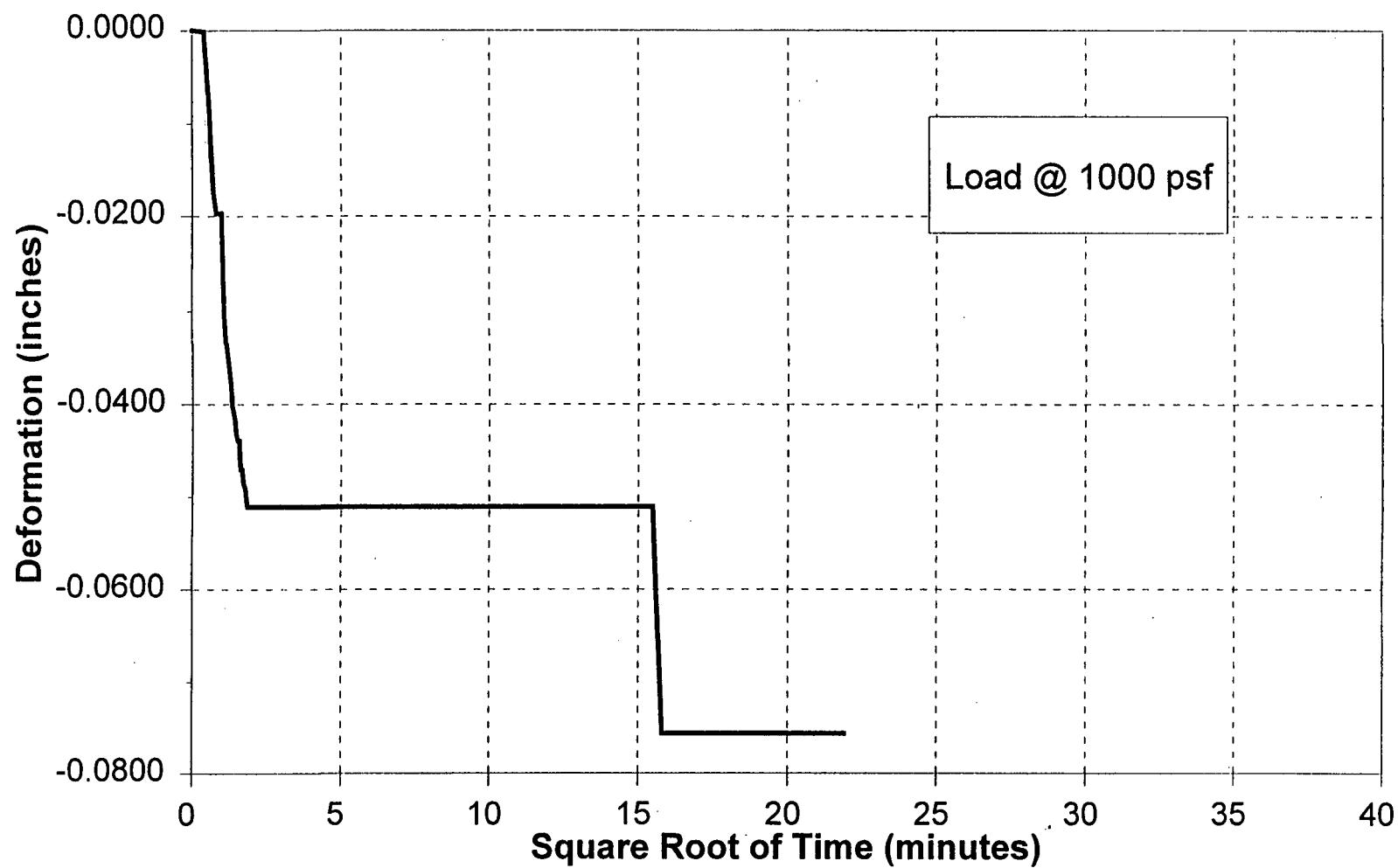


Time Rate of Consolidation

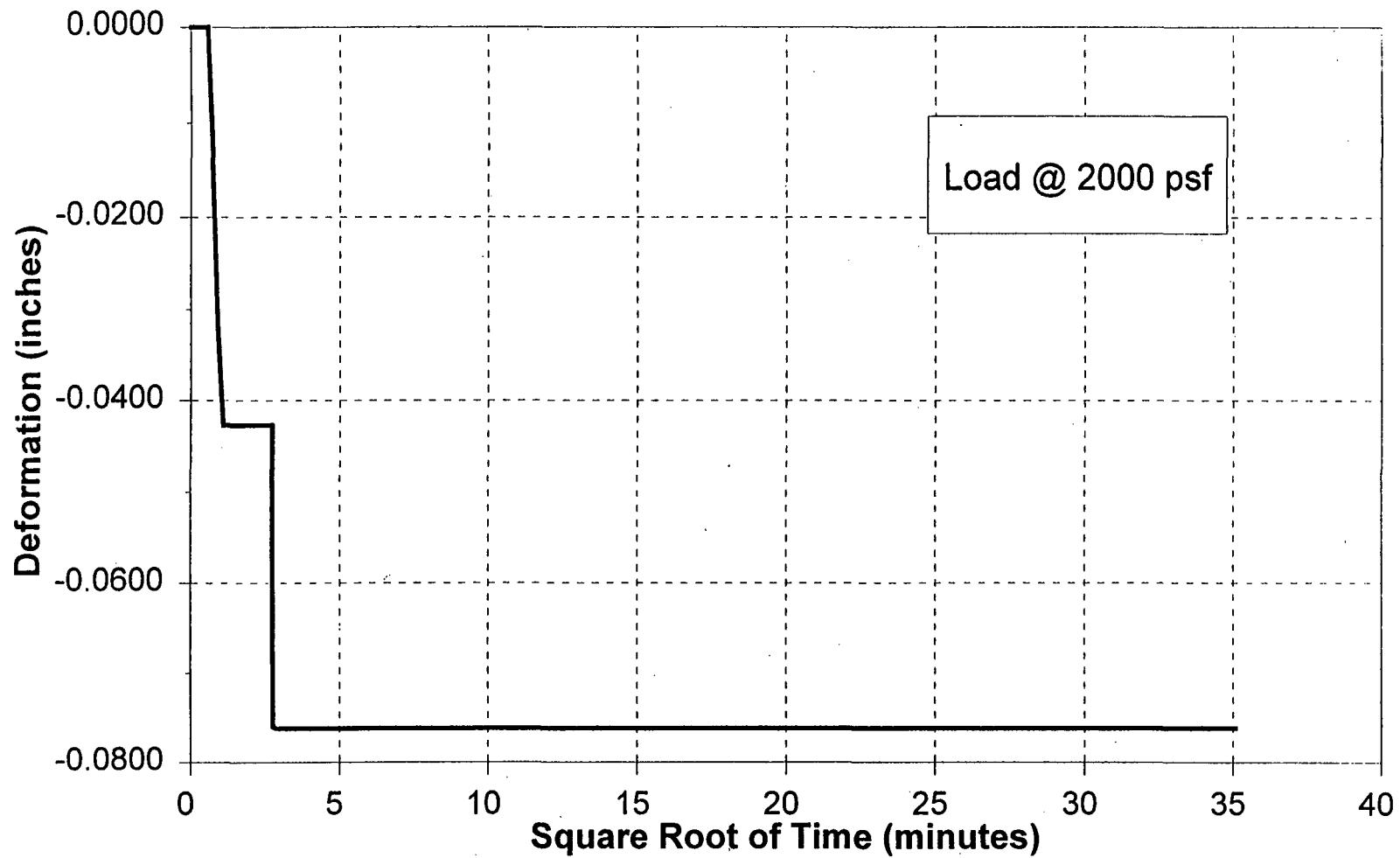
Sample: Pond 12S, BH-1 @ 13.5 feet



Time Rate of Consolidation
Sample: Pond 12S, BH-1 @ 13.5 feet

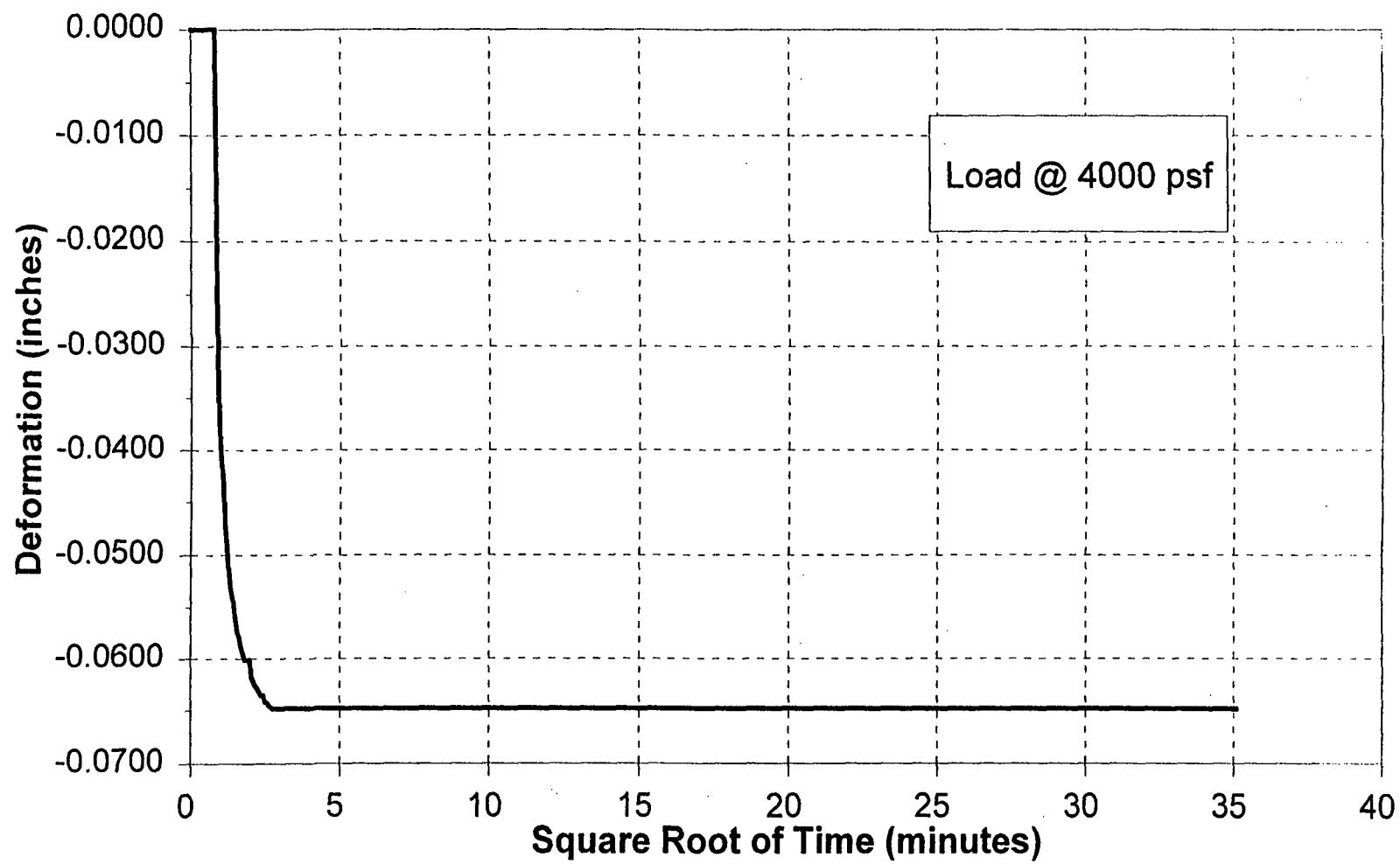


Time Rate of Consolidation
Sample: Pond 12S, BH-1 @ 13.5 feet



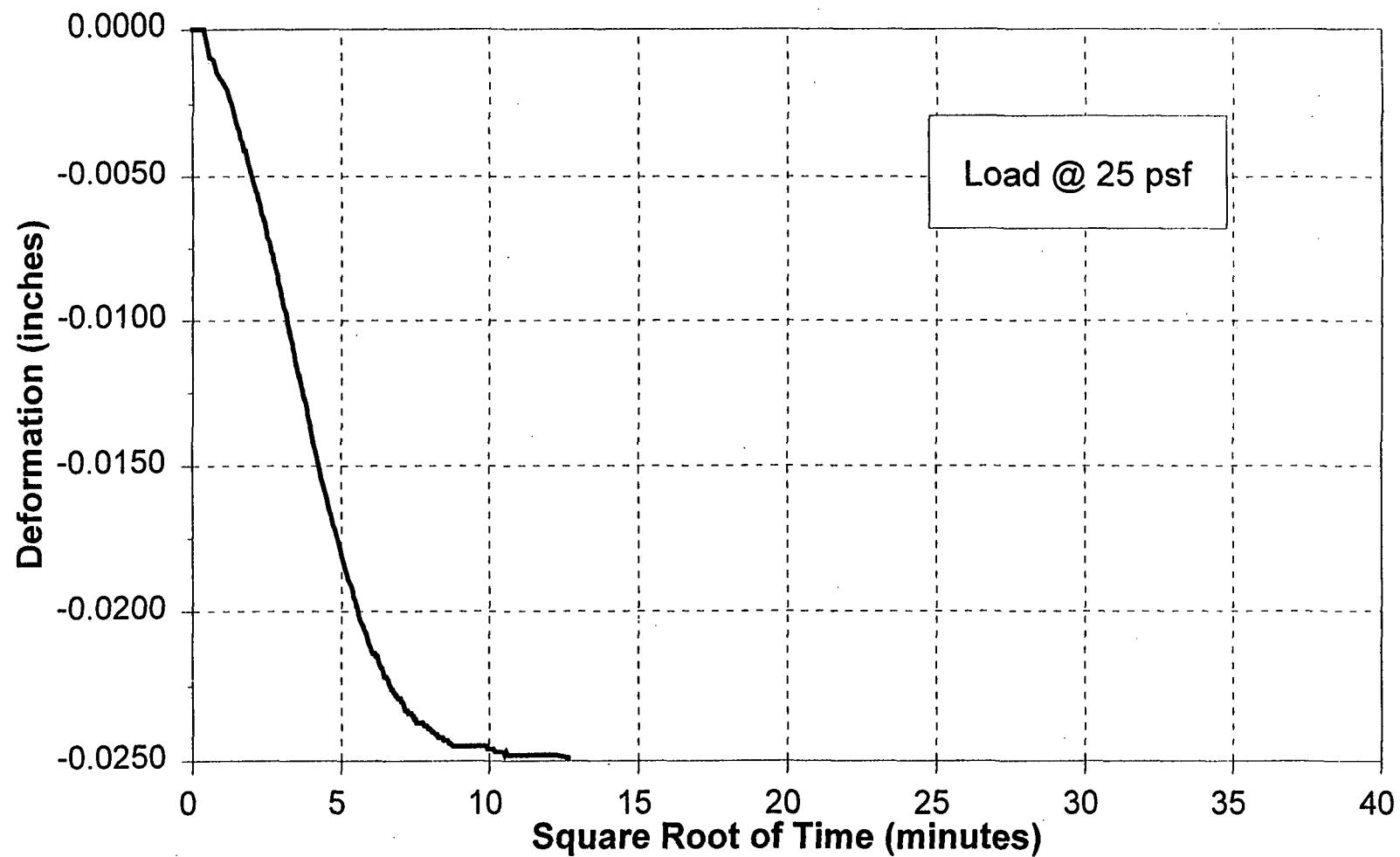
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



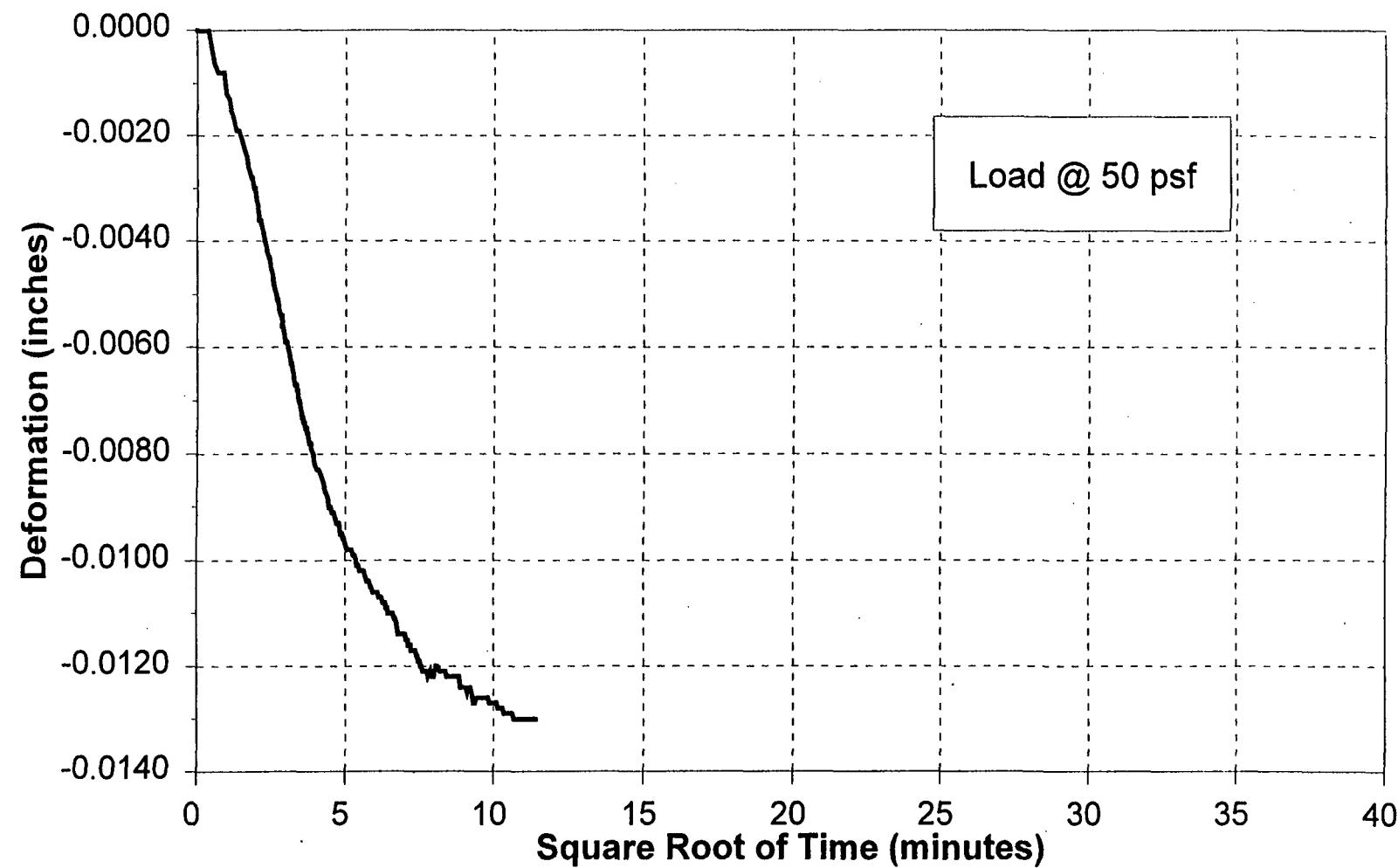
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



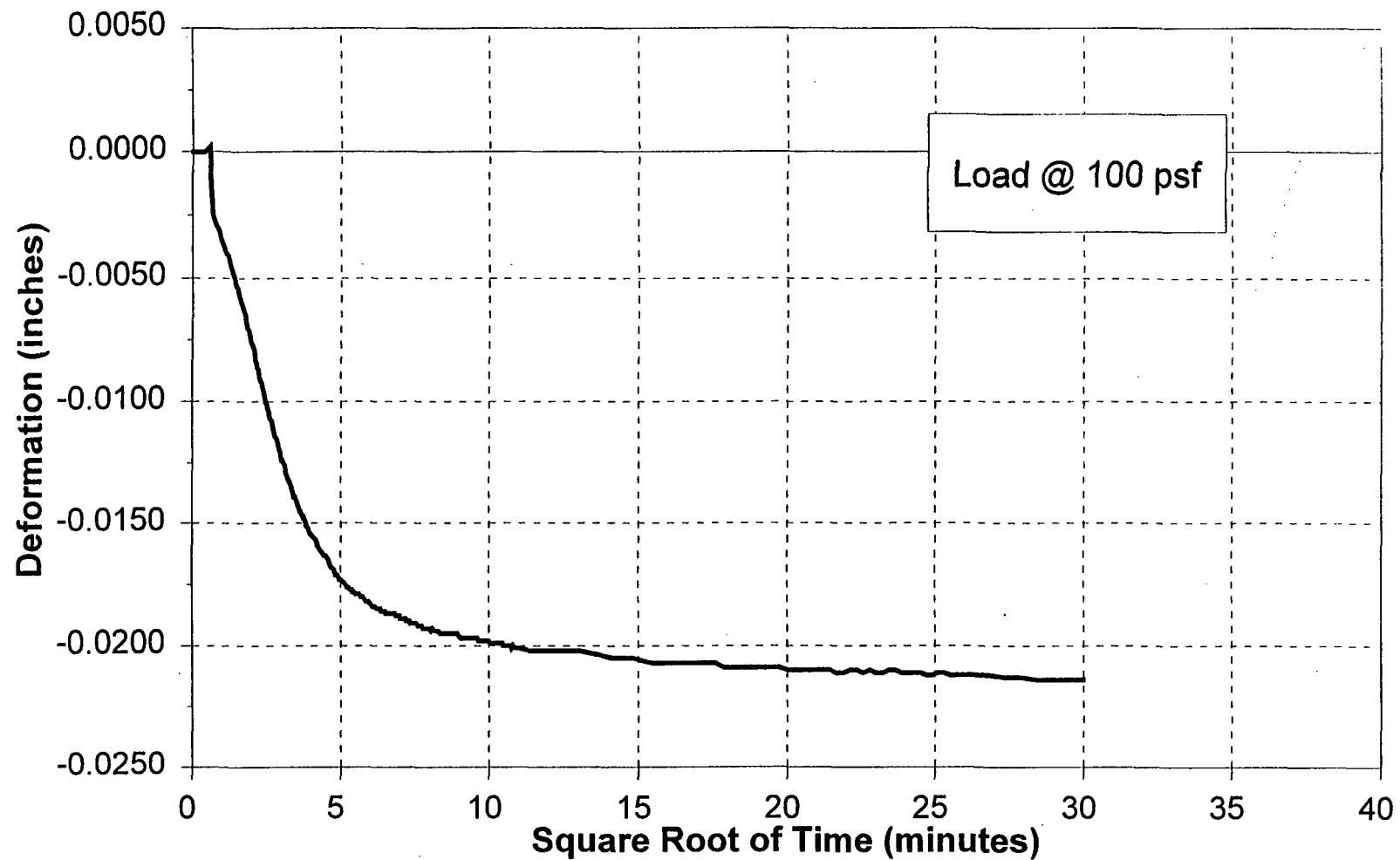
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



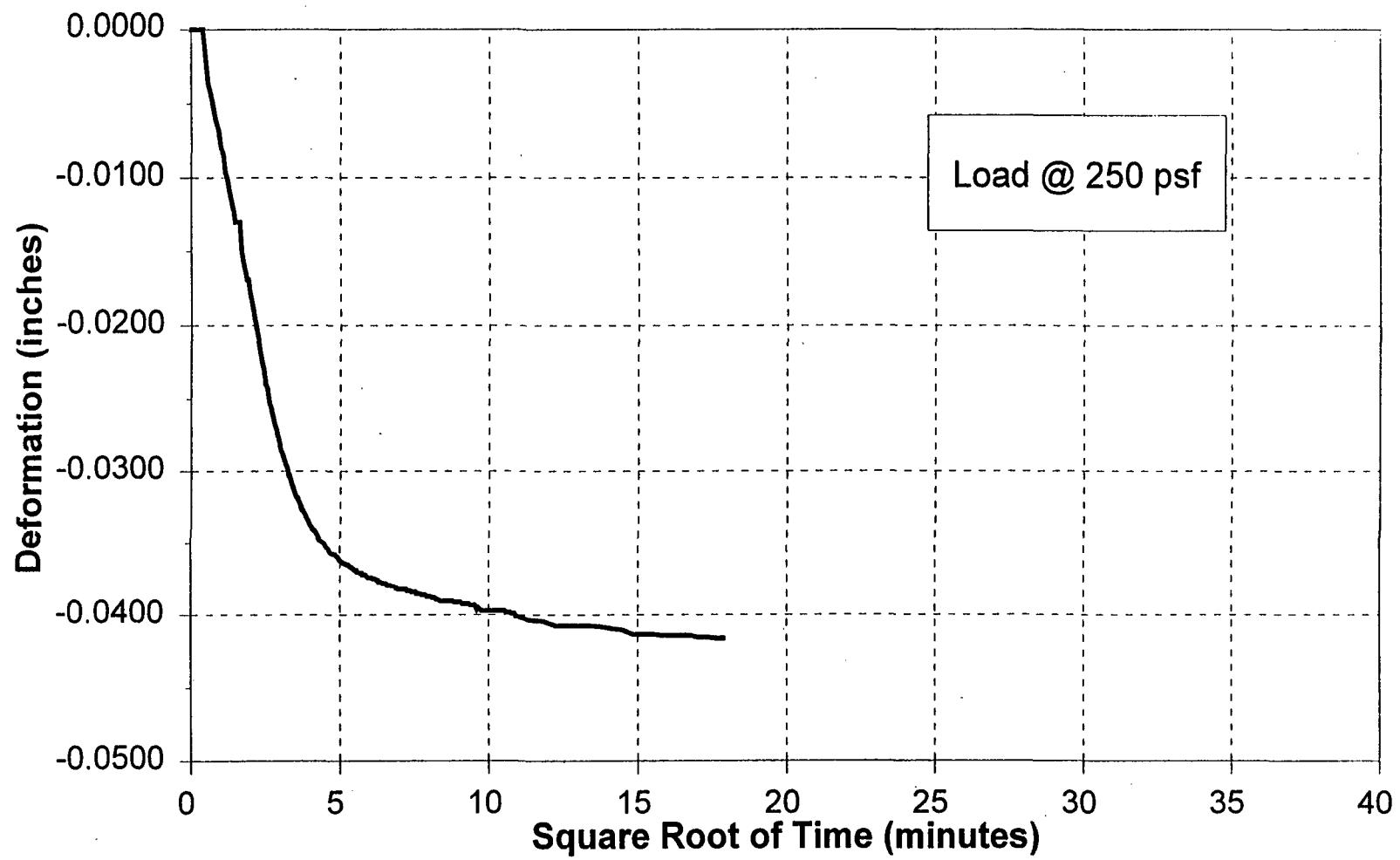
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet

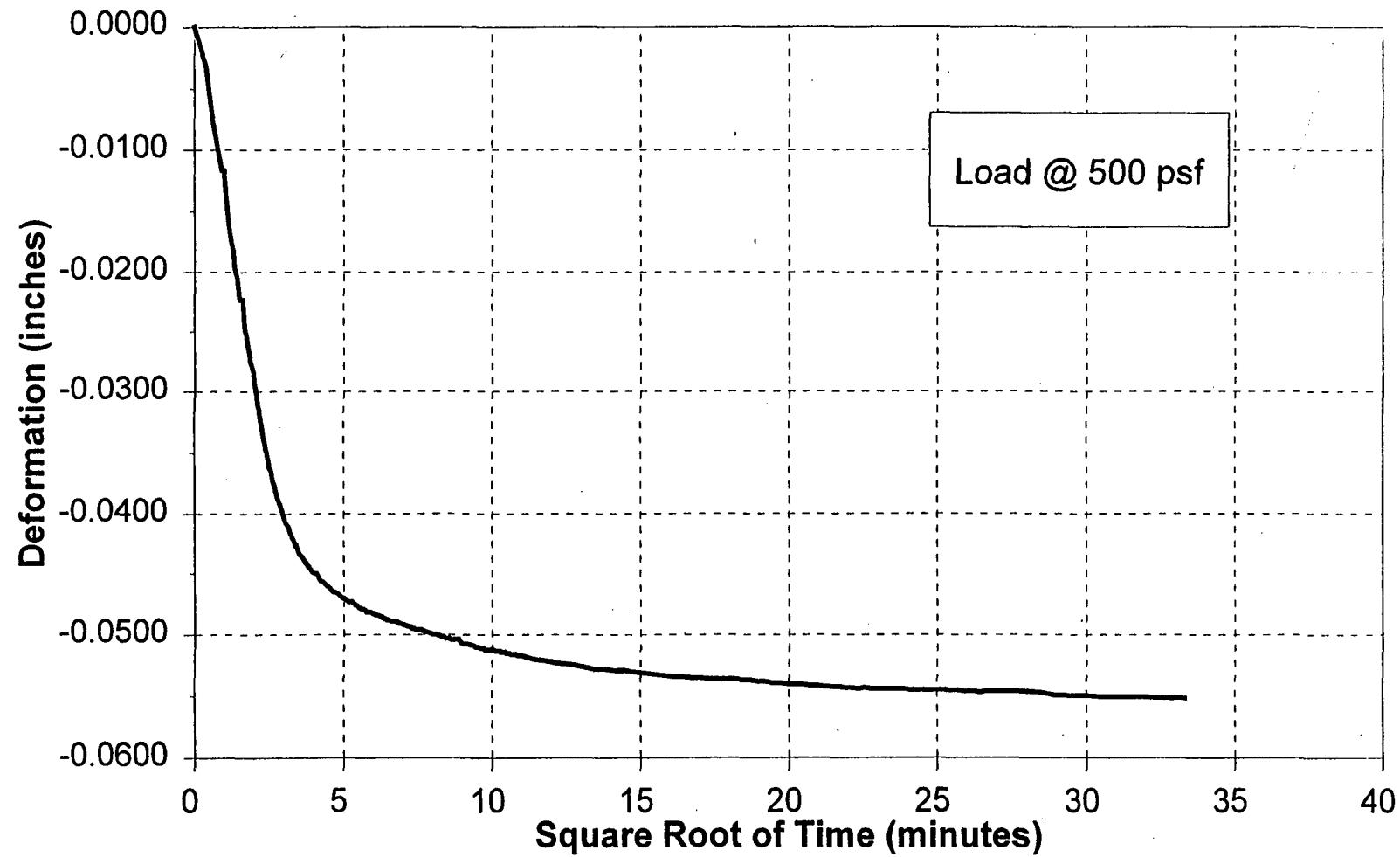


Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet

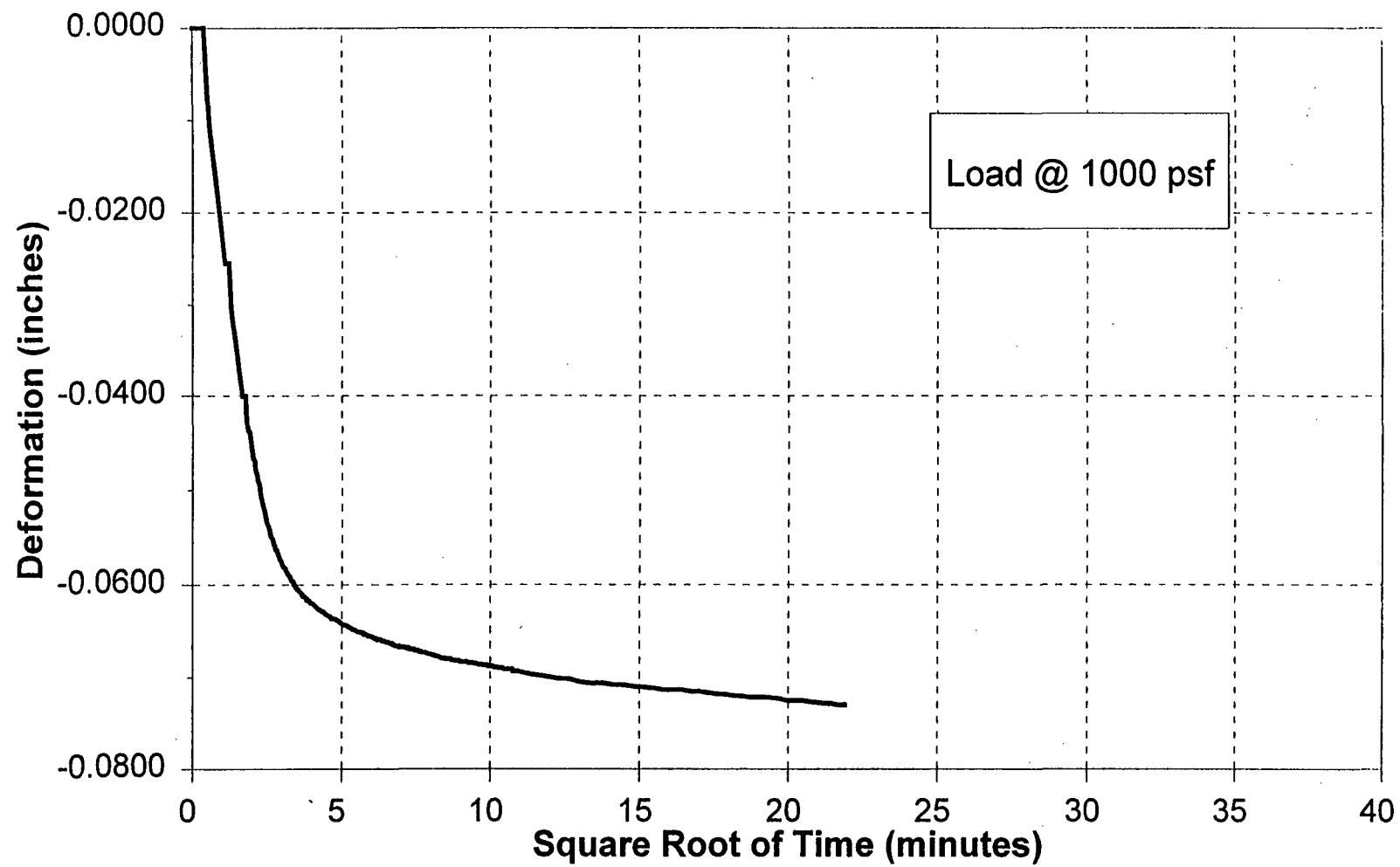


Time Rate of Consolidation
Sample: Pond 12S, BH-2 @ 16.5 feet



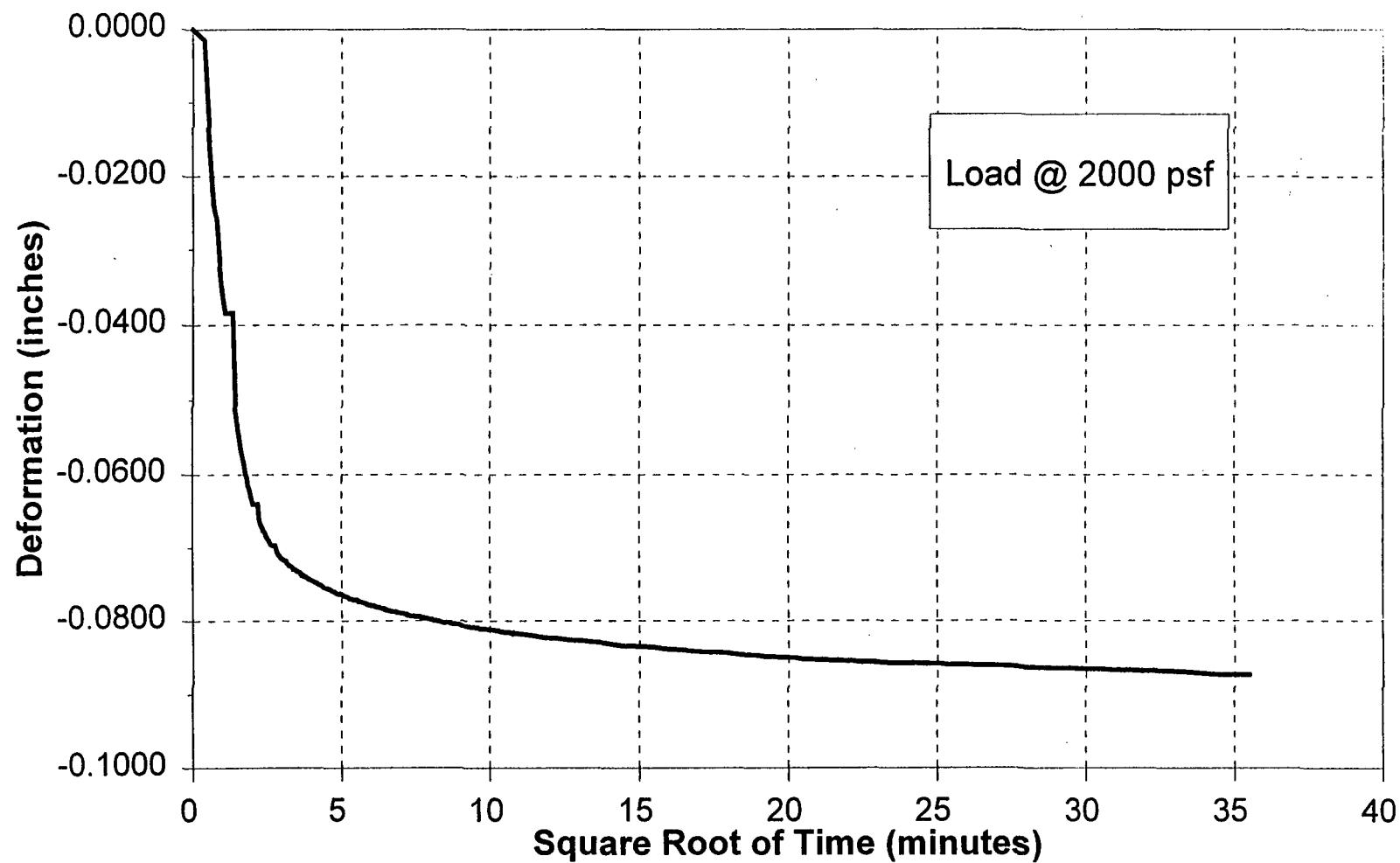
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



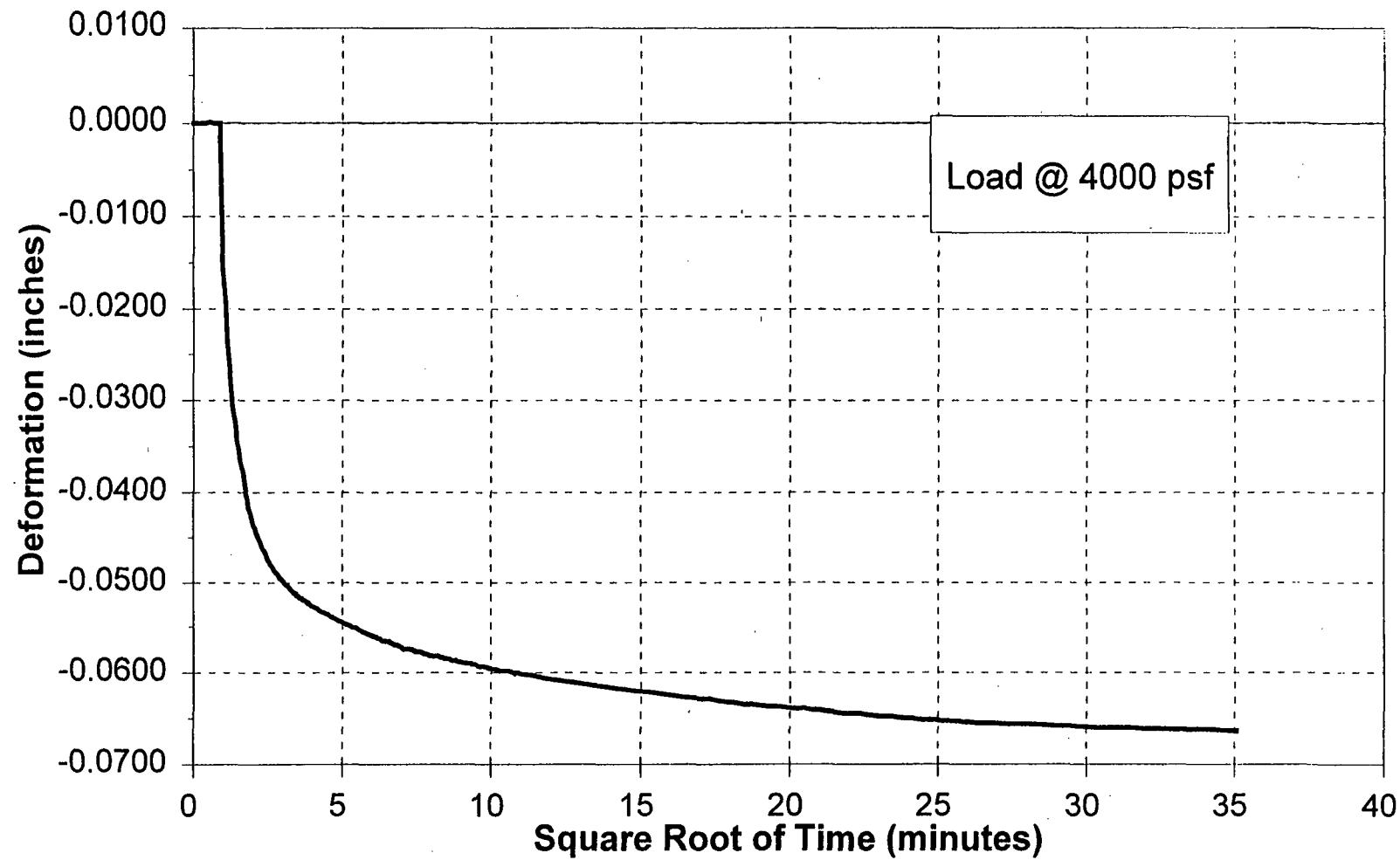
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



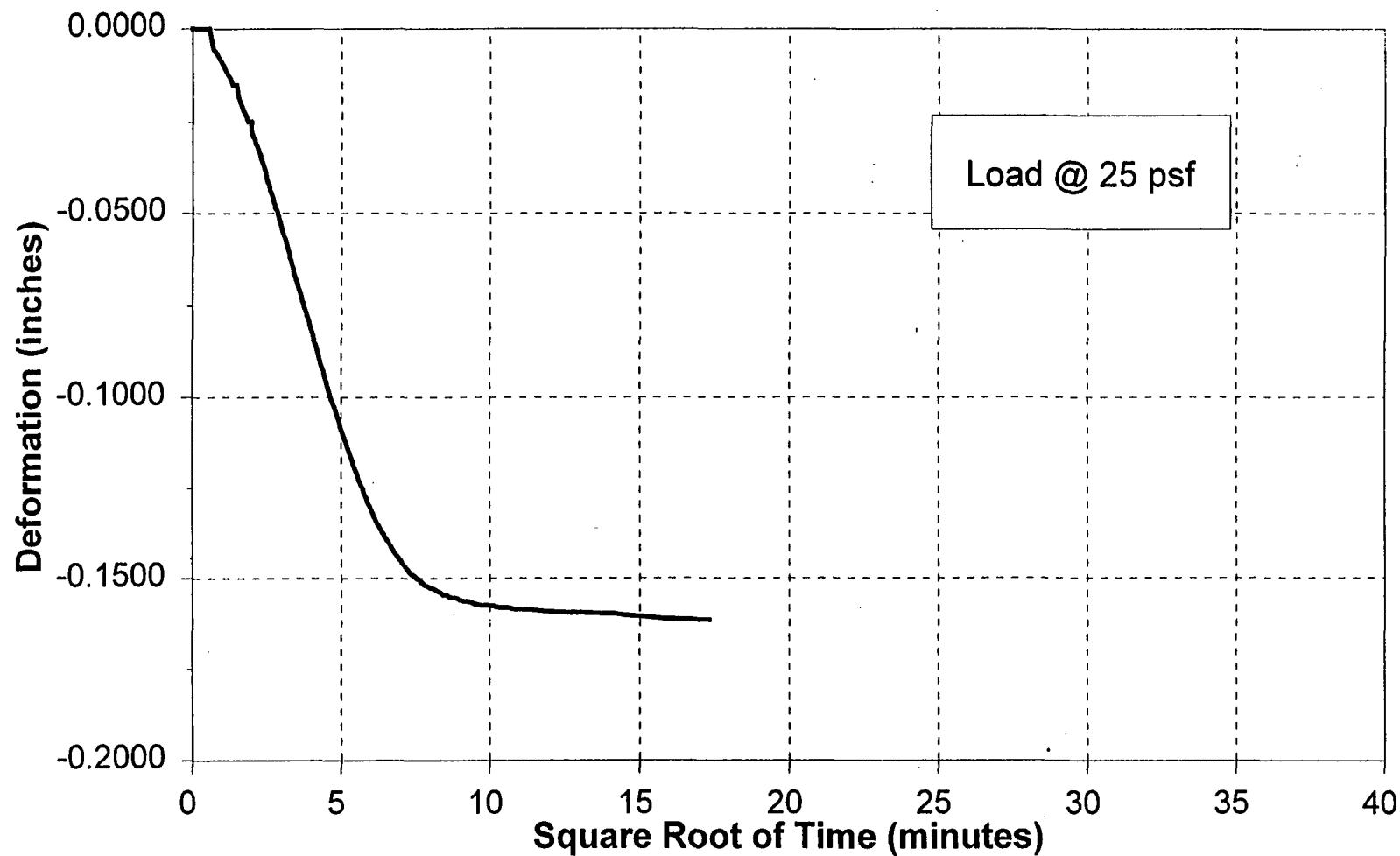
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



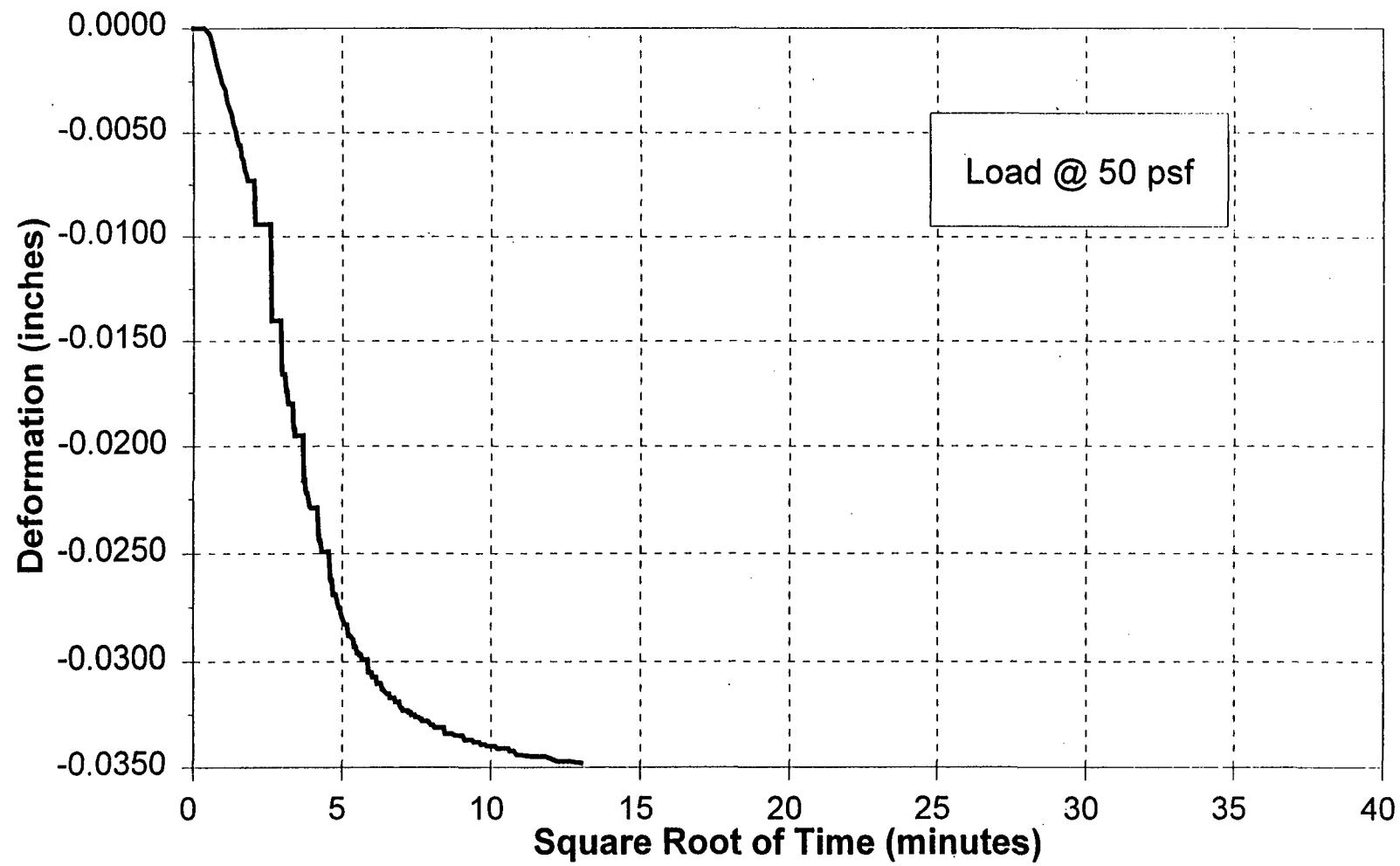
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



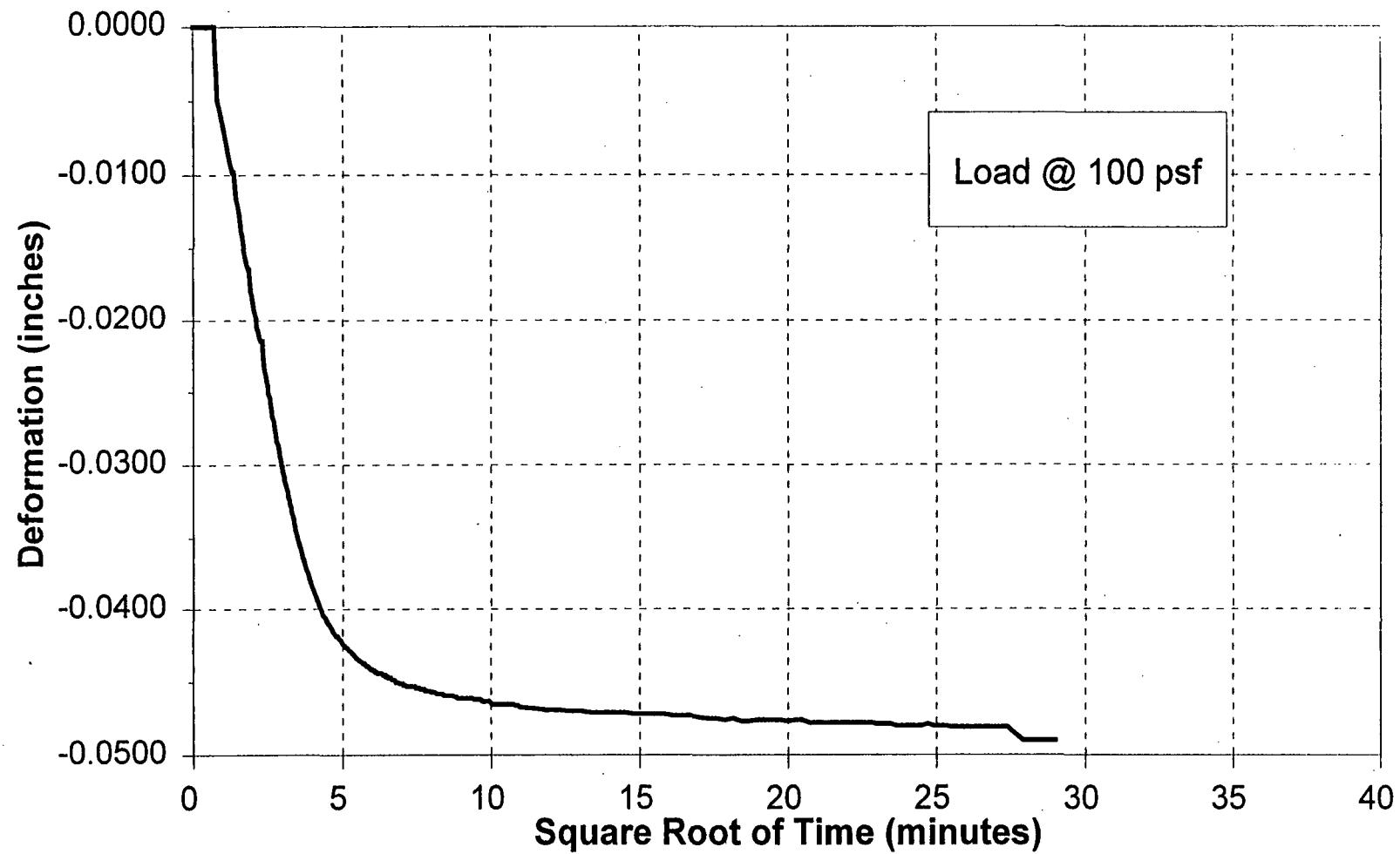
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



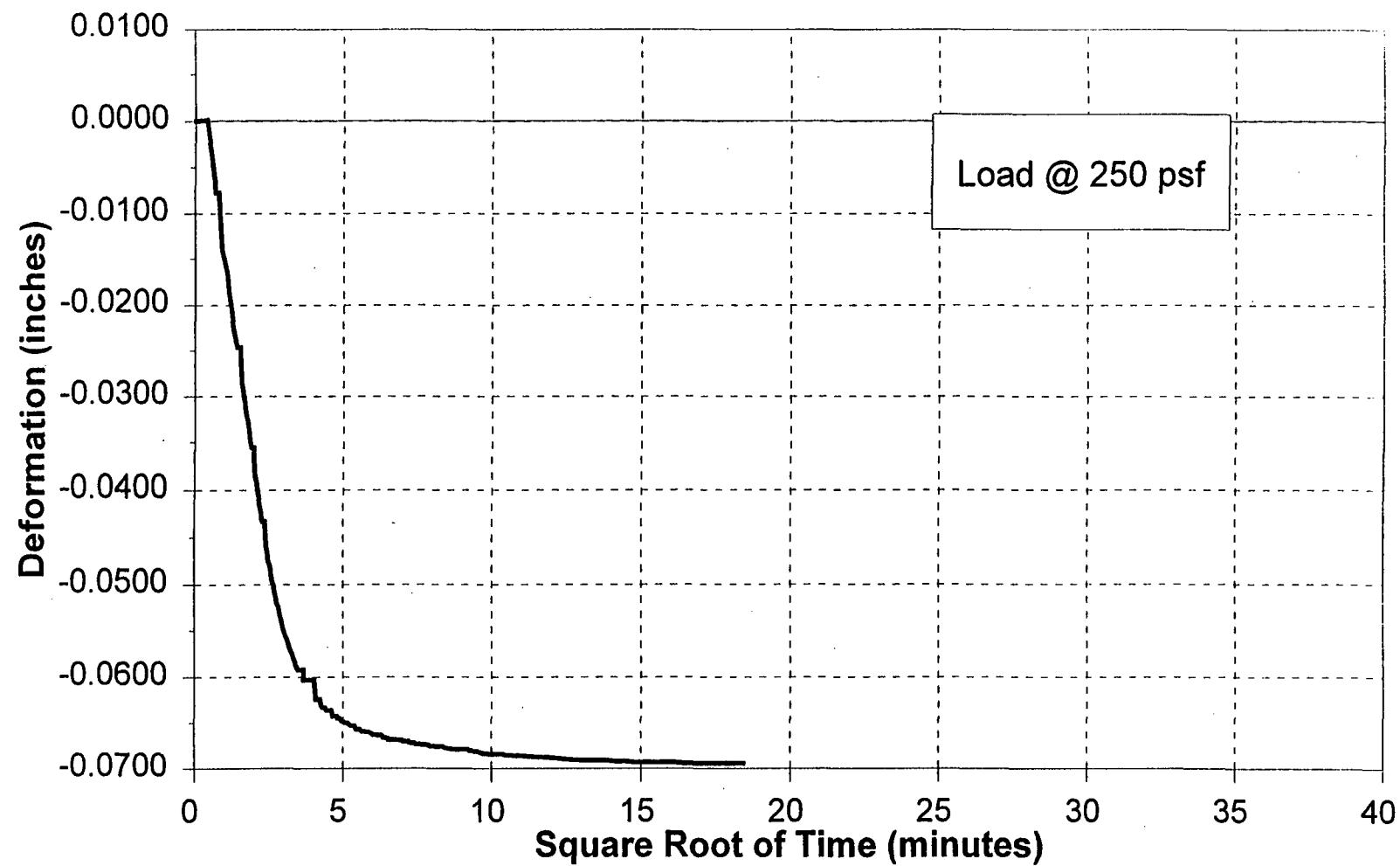
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



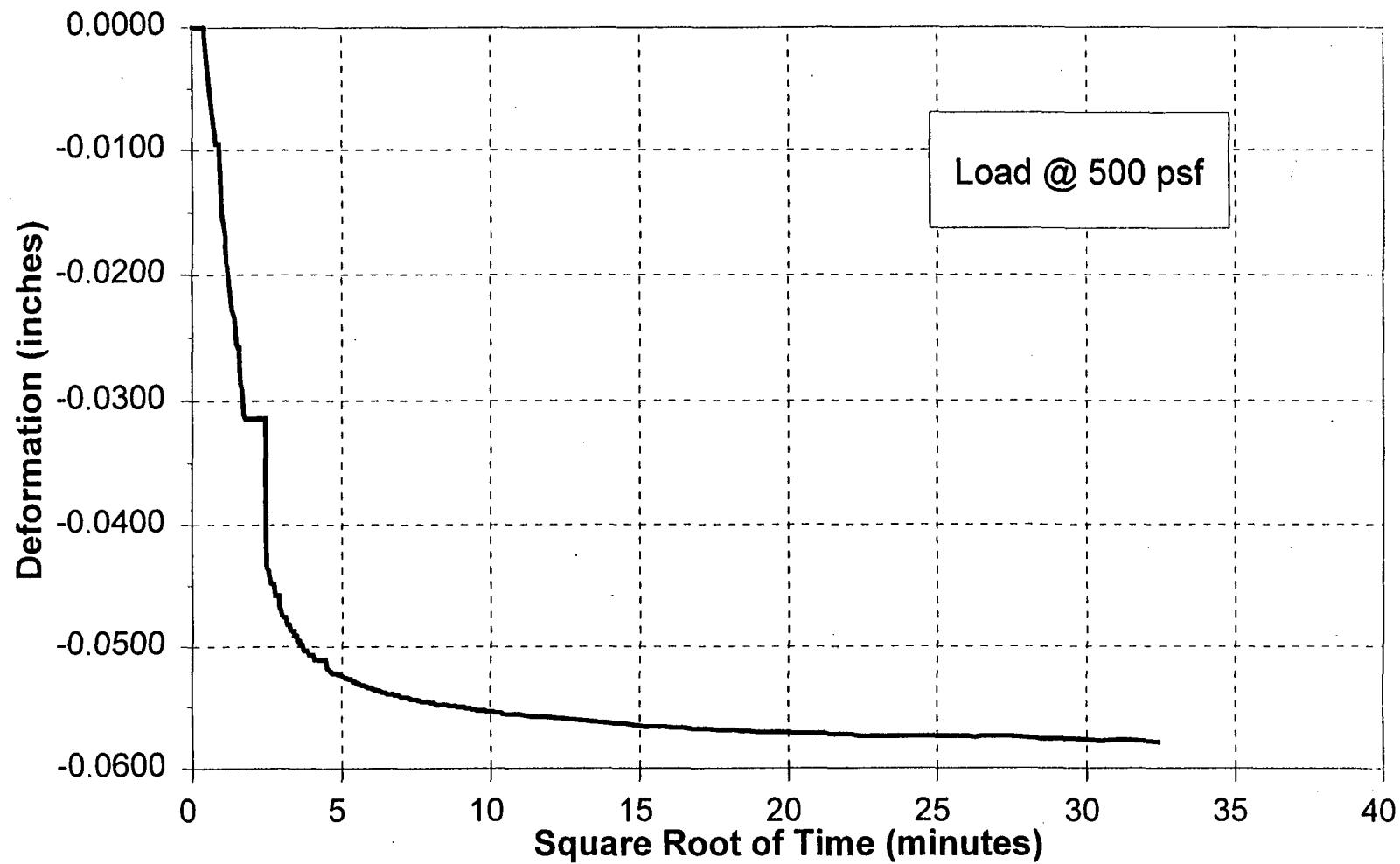
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



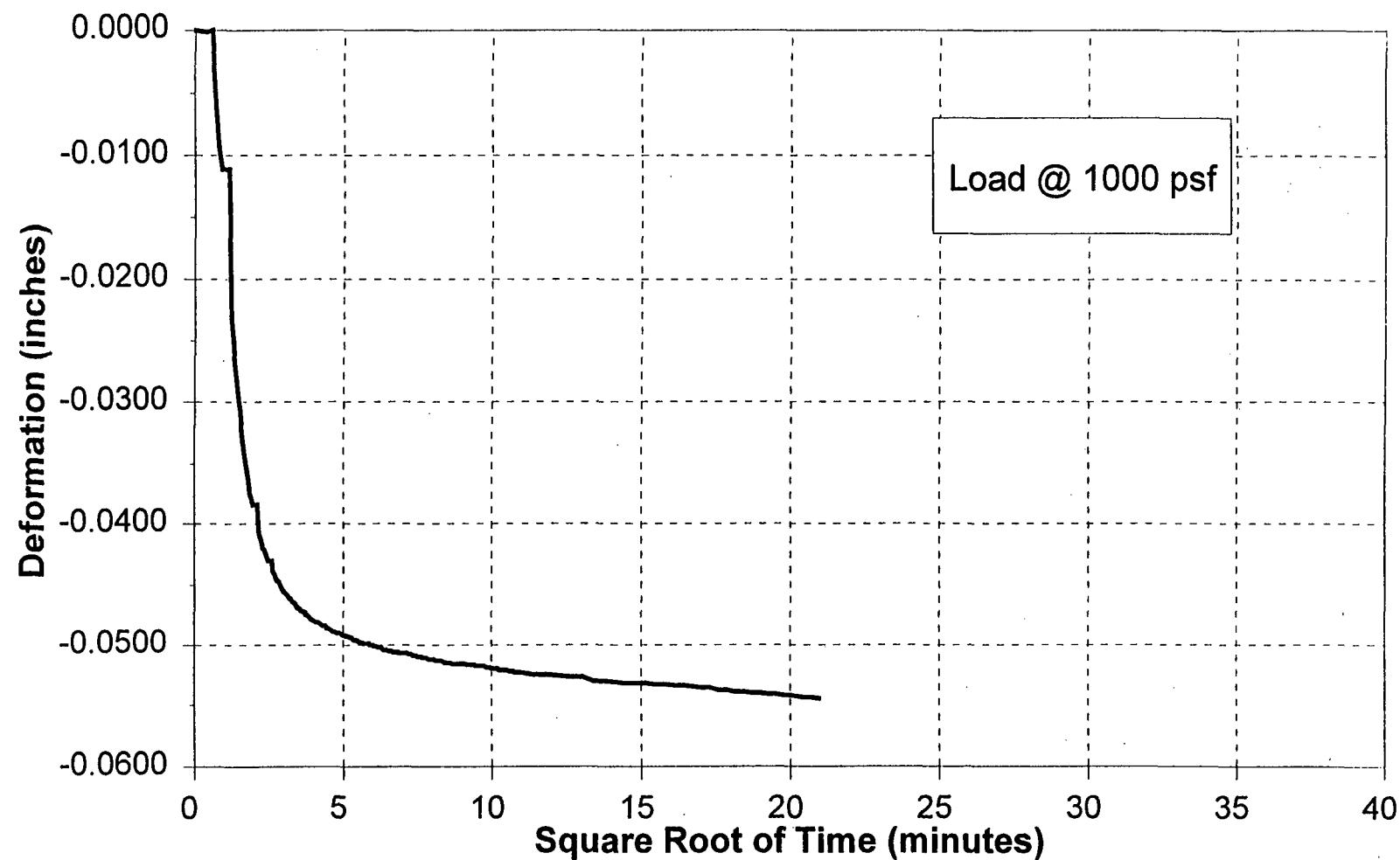
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



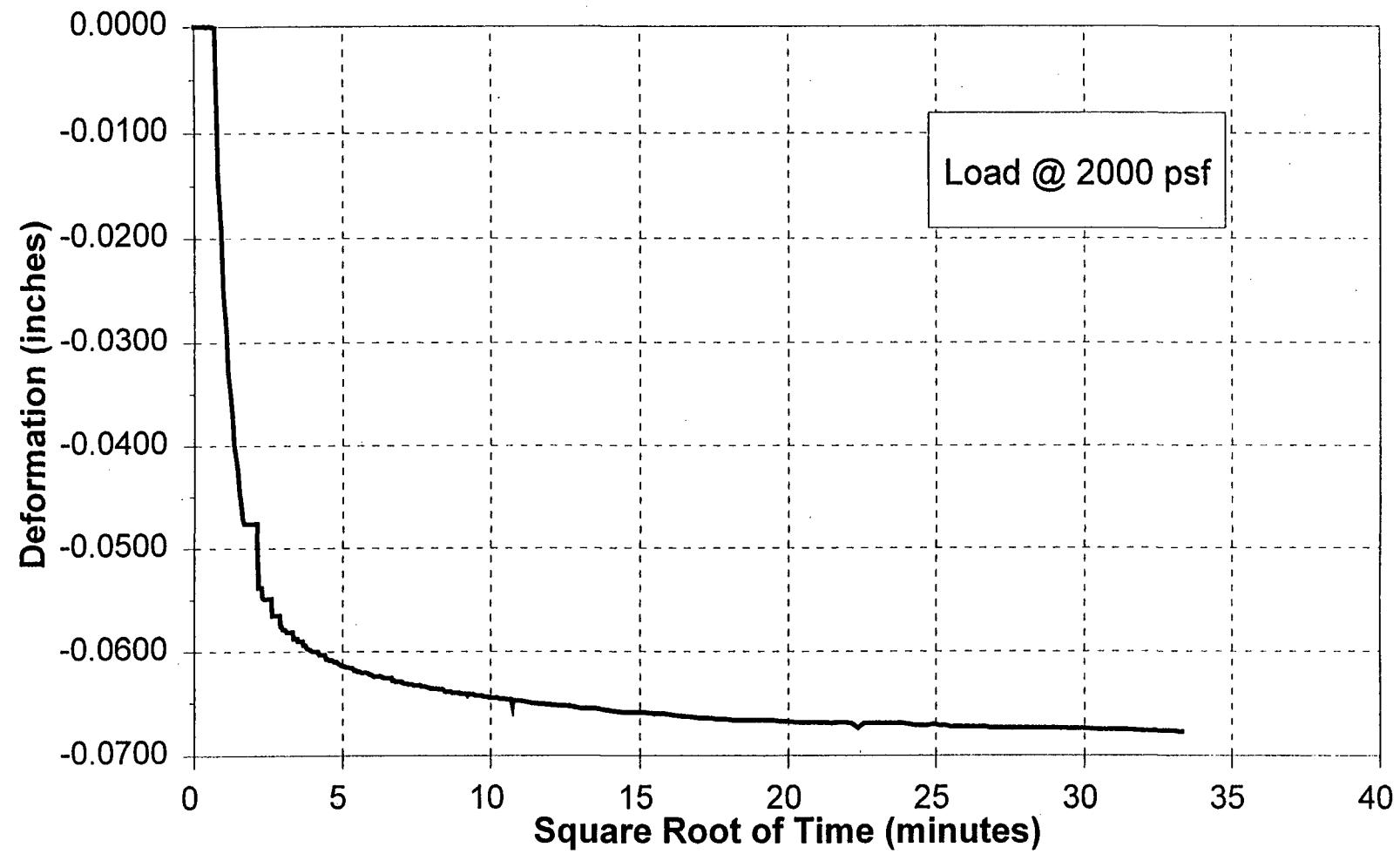
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



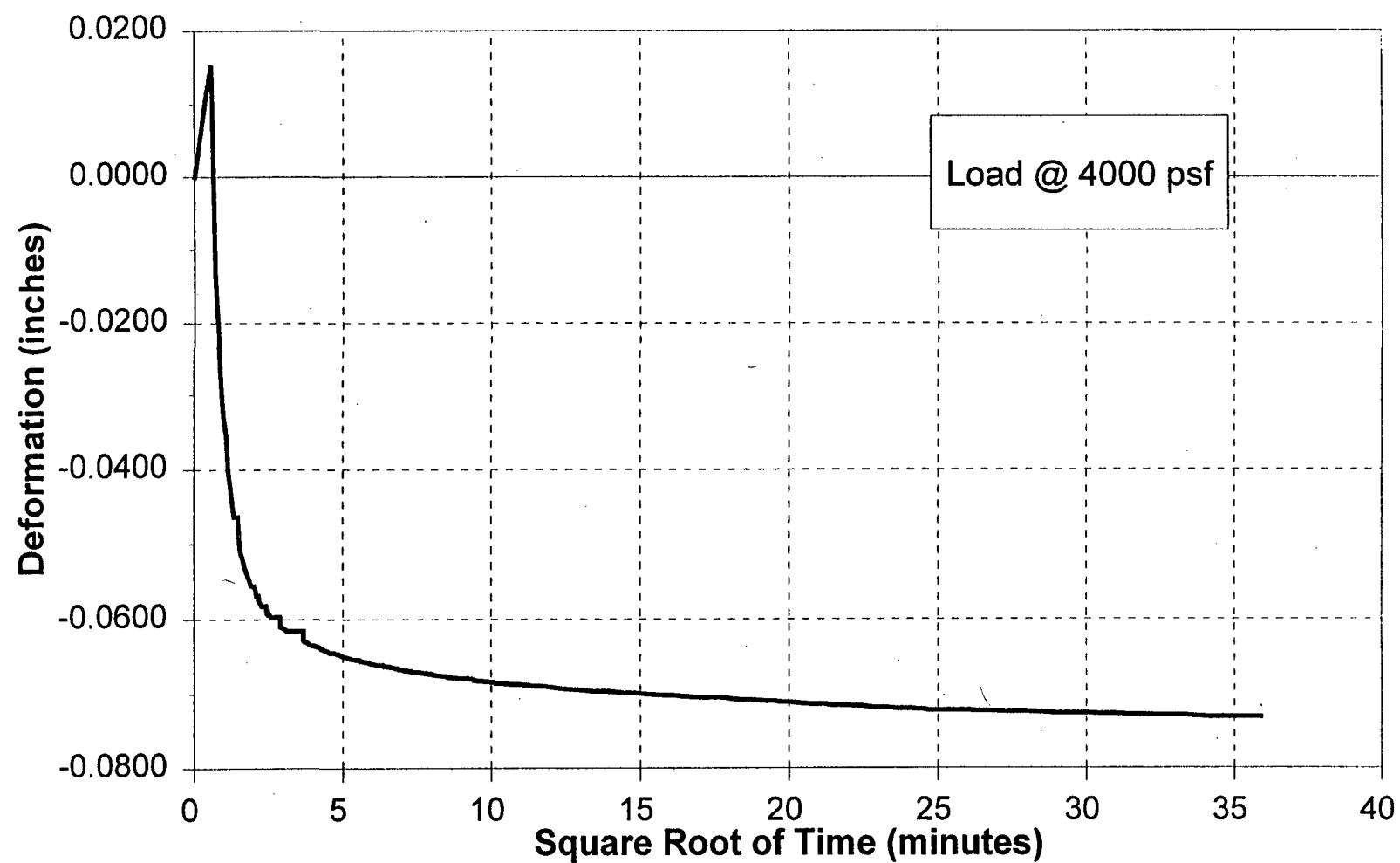
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet

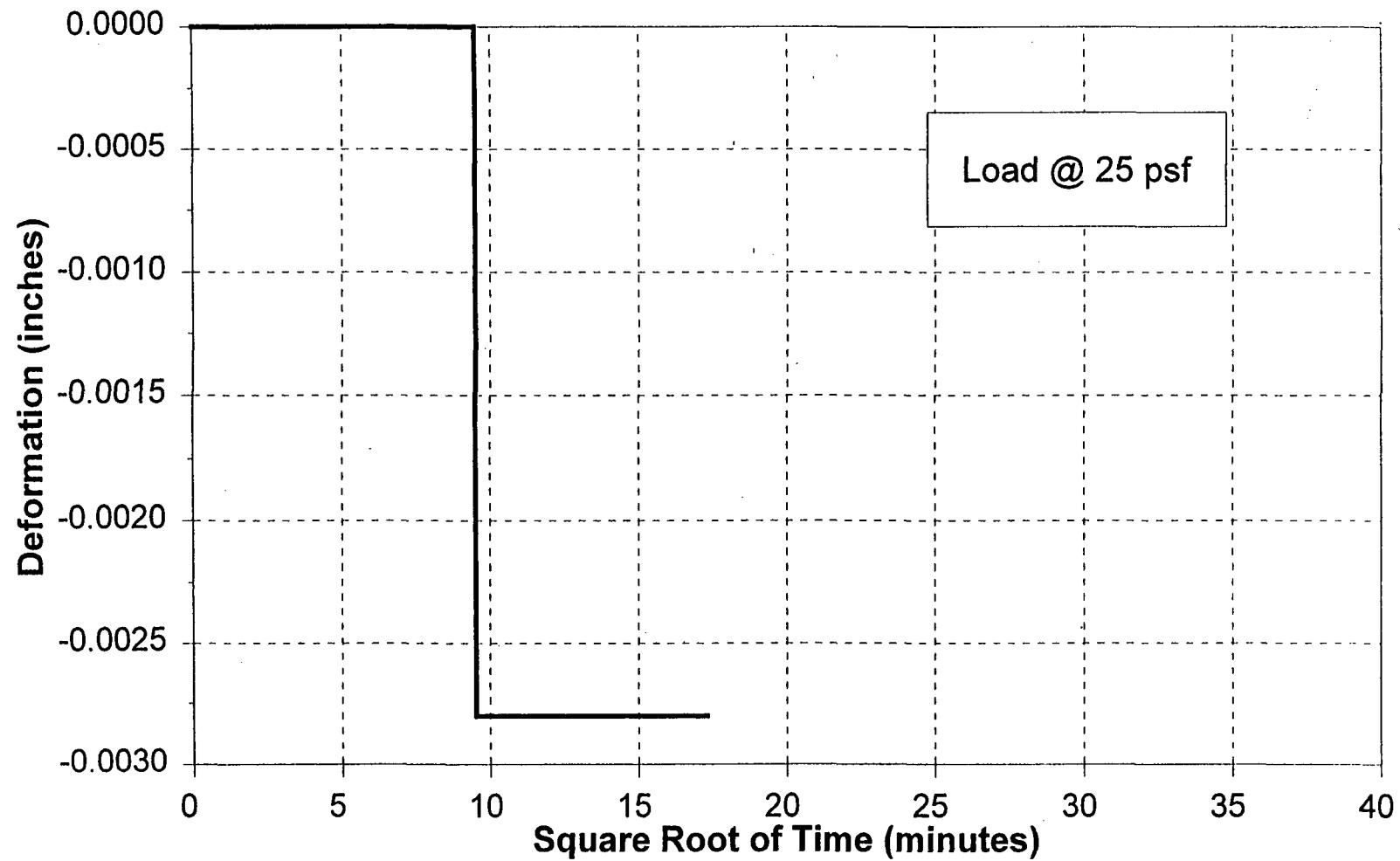


Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet

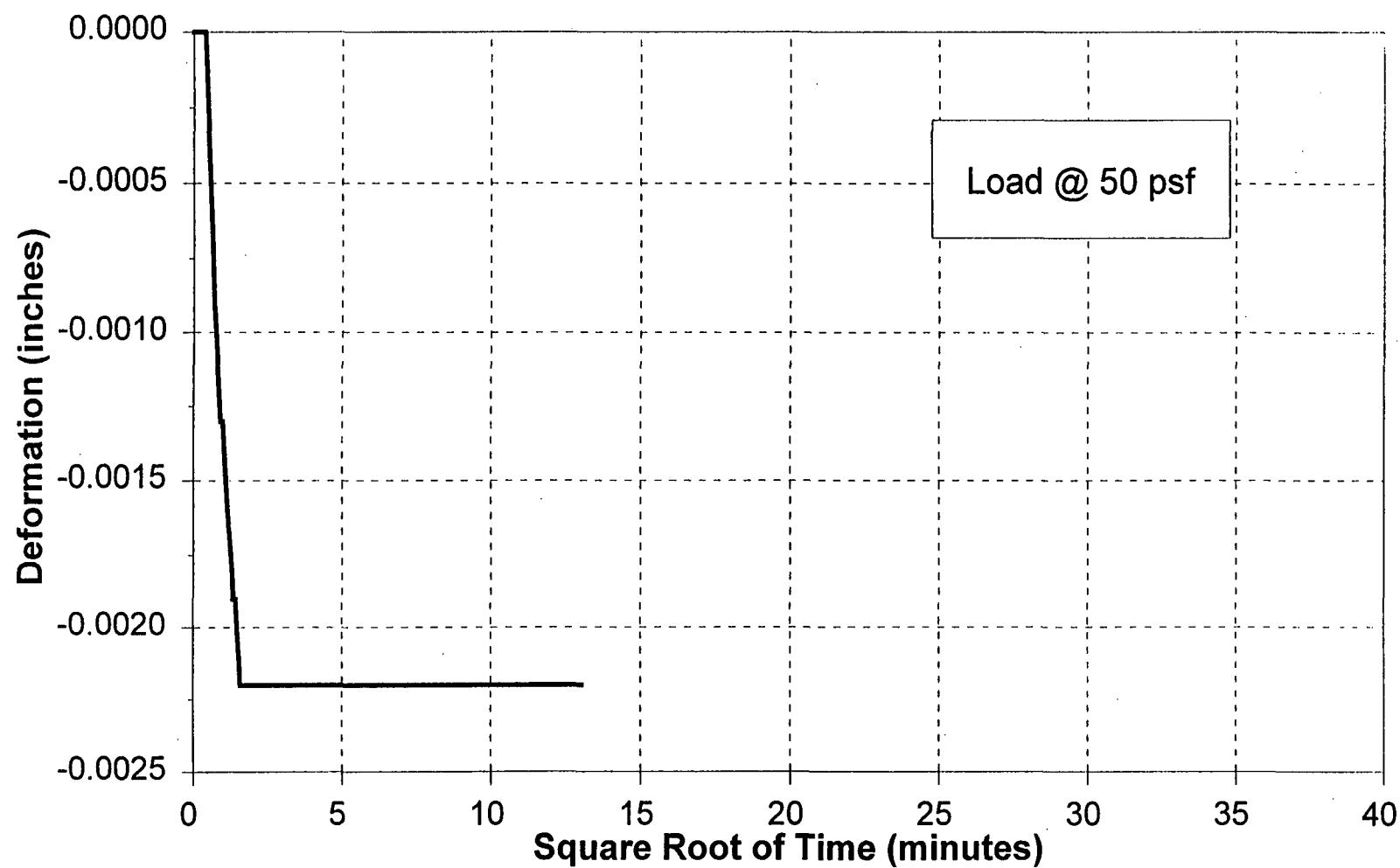


Time Rate of Consolidation
Sample: Pond 13S, BH-3 @ 14.5 feet

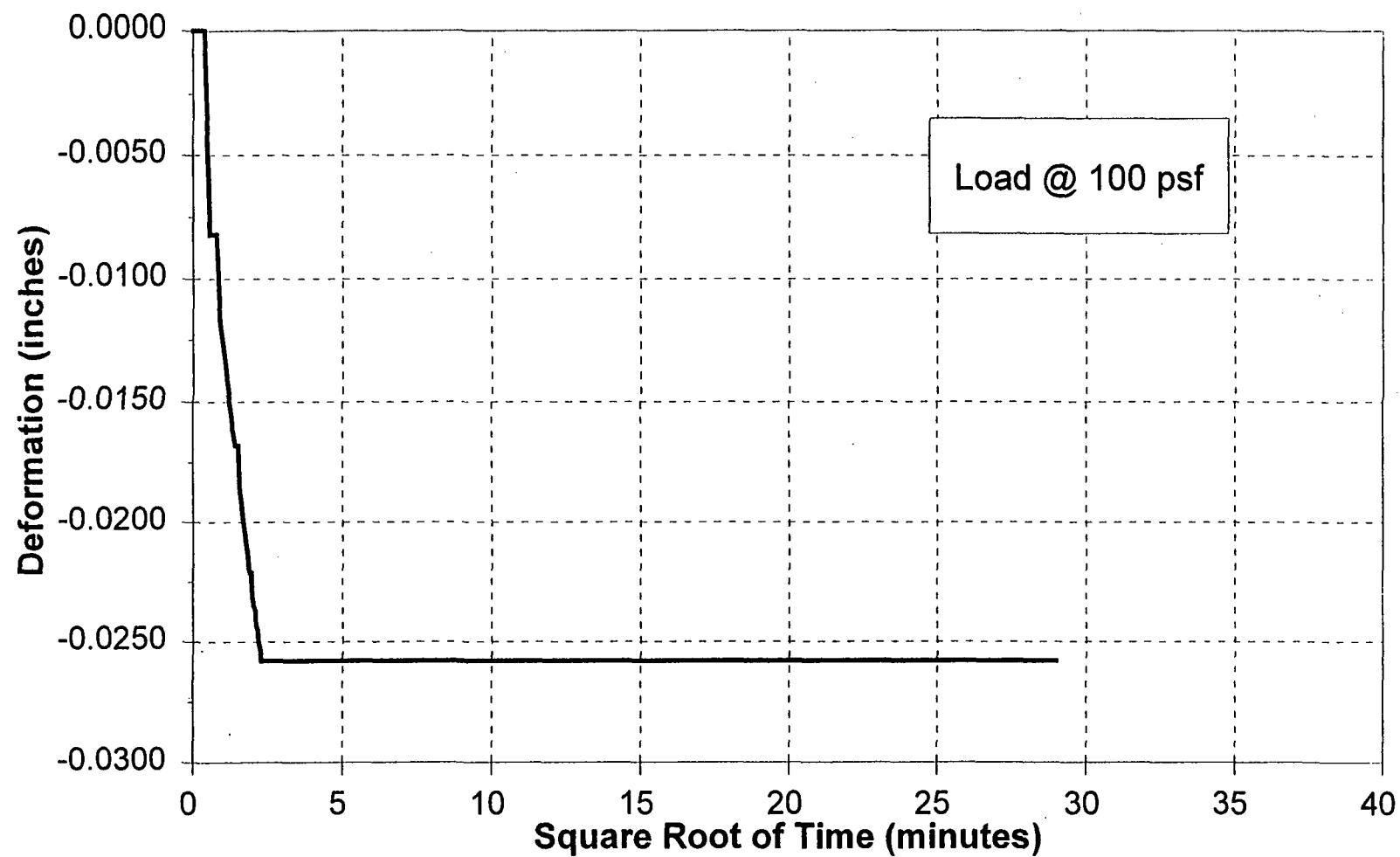


Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet

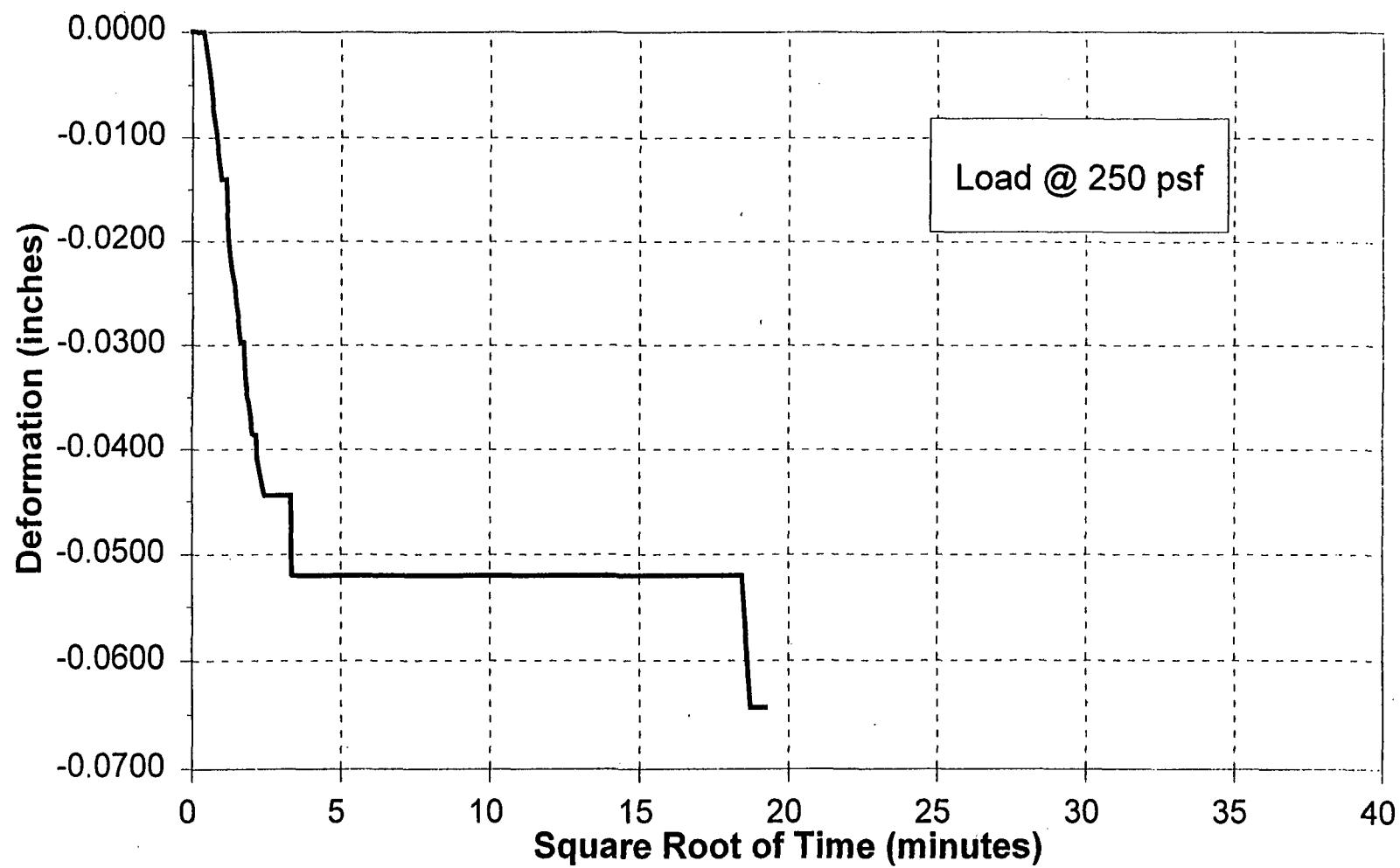


Time Rate of Consolidation
Sample: Pond 13S, BH-3 @ 14.5 feet



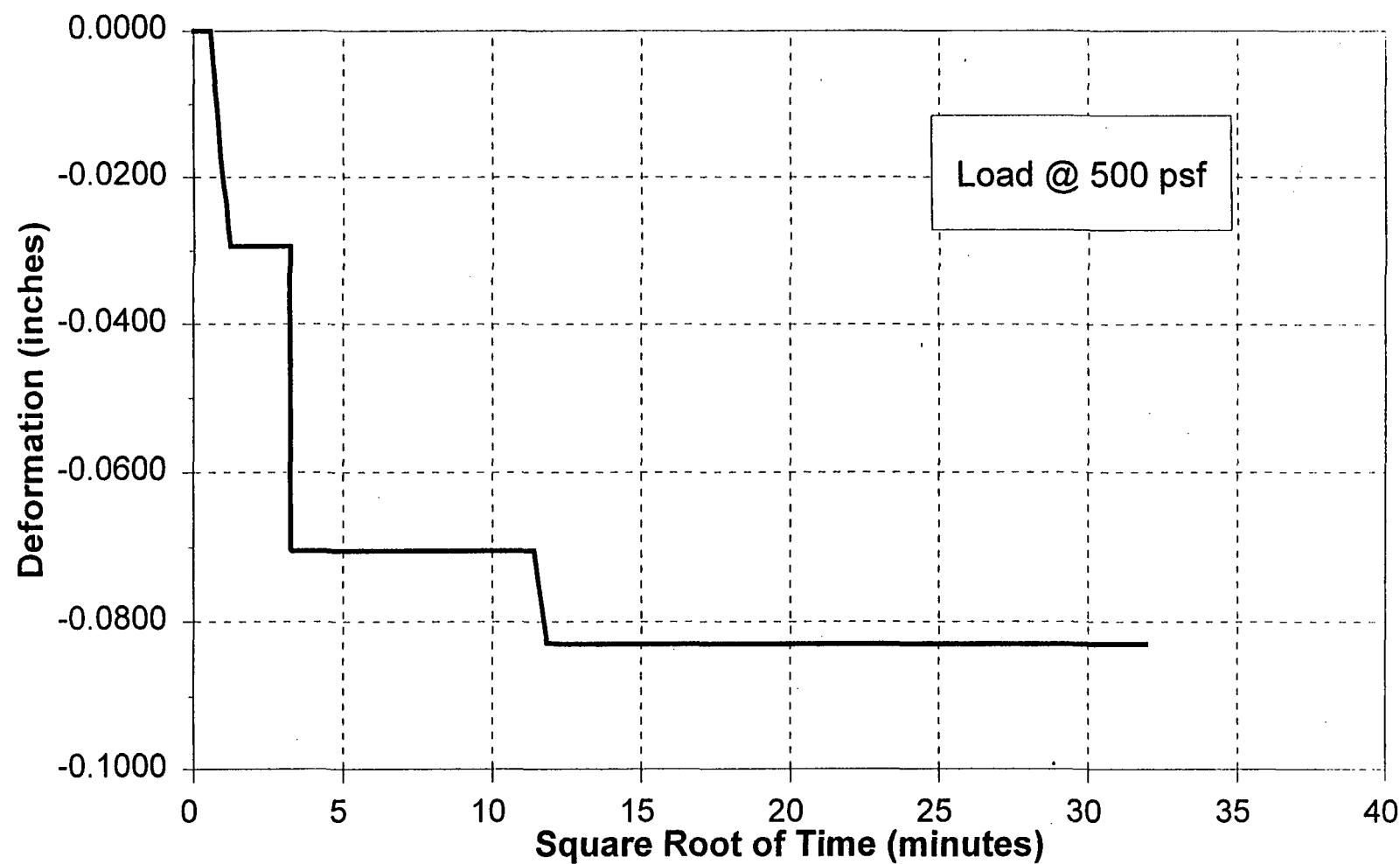
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



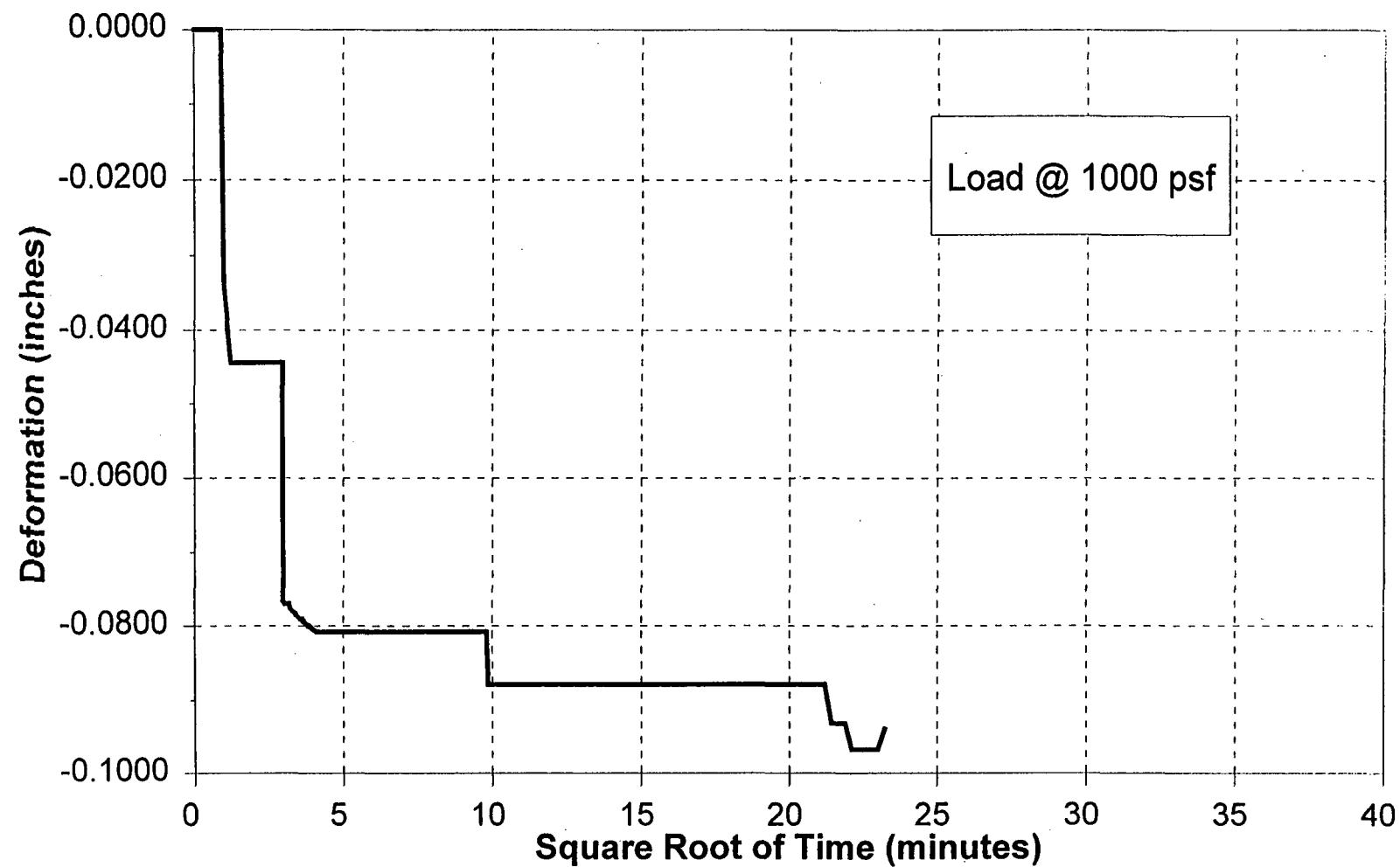
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



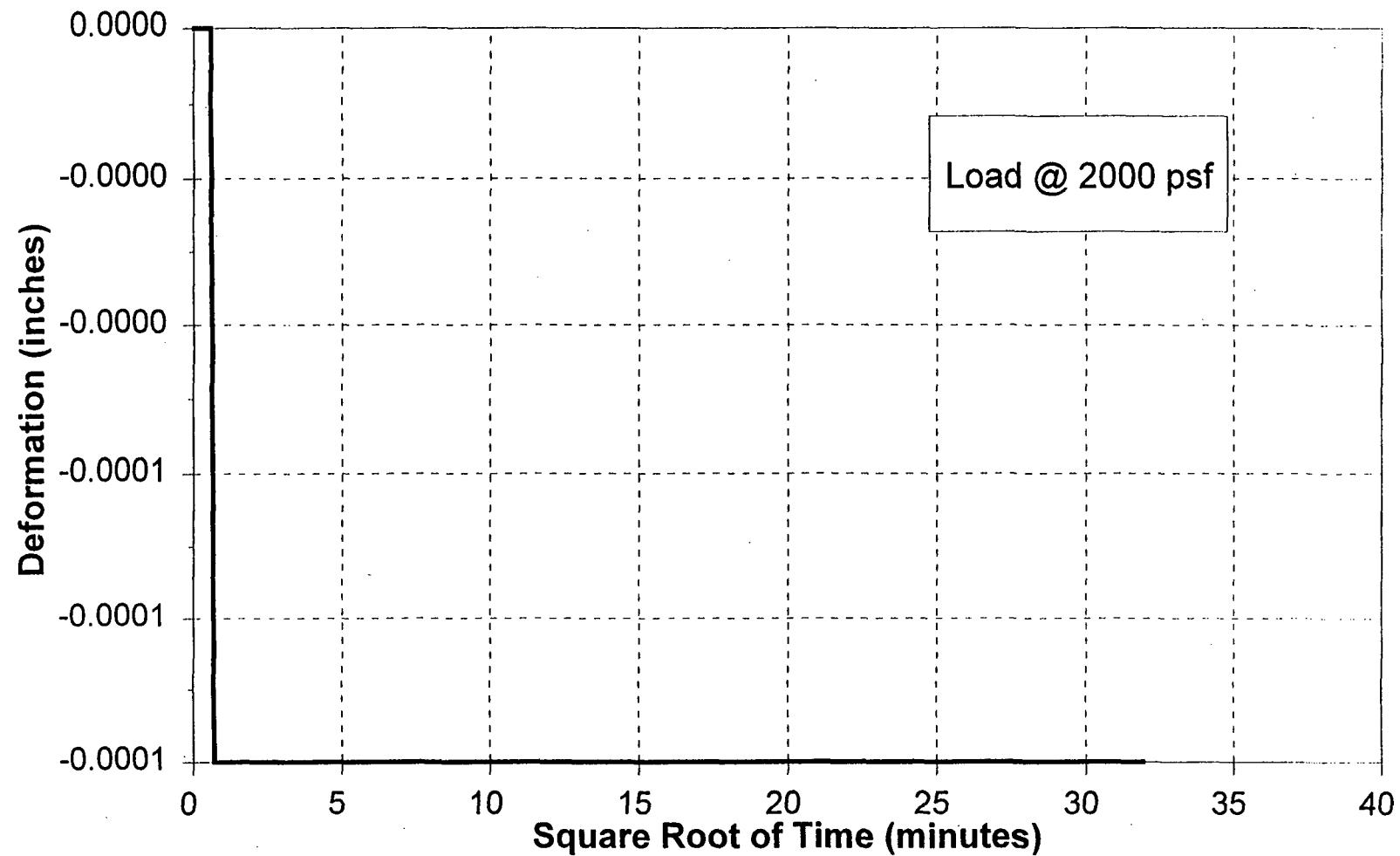
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



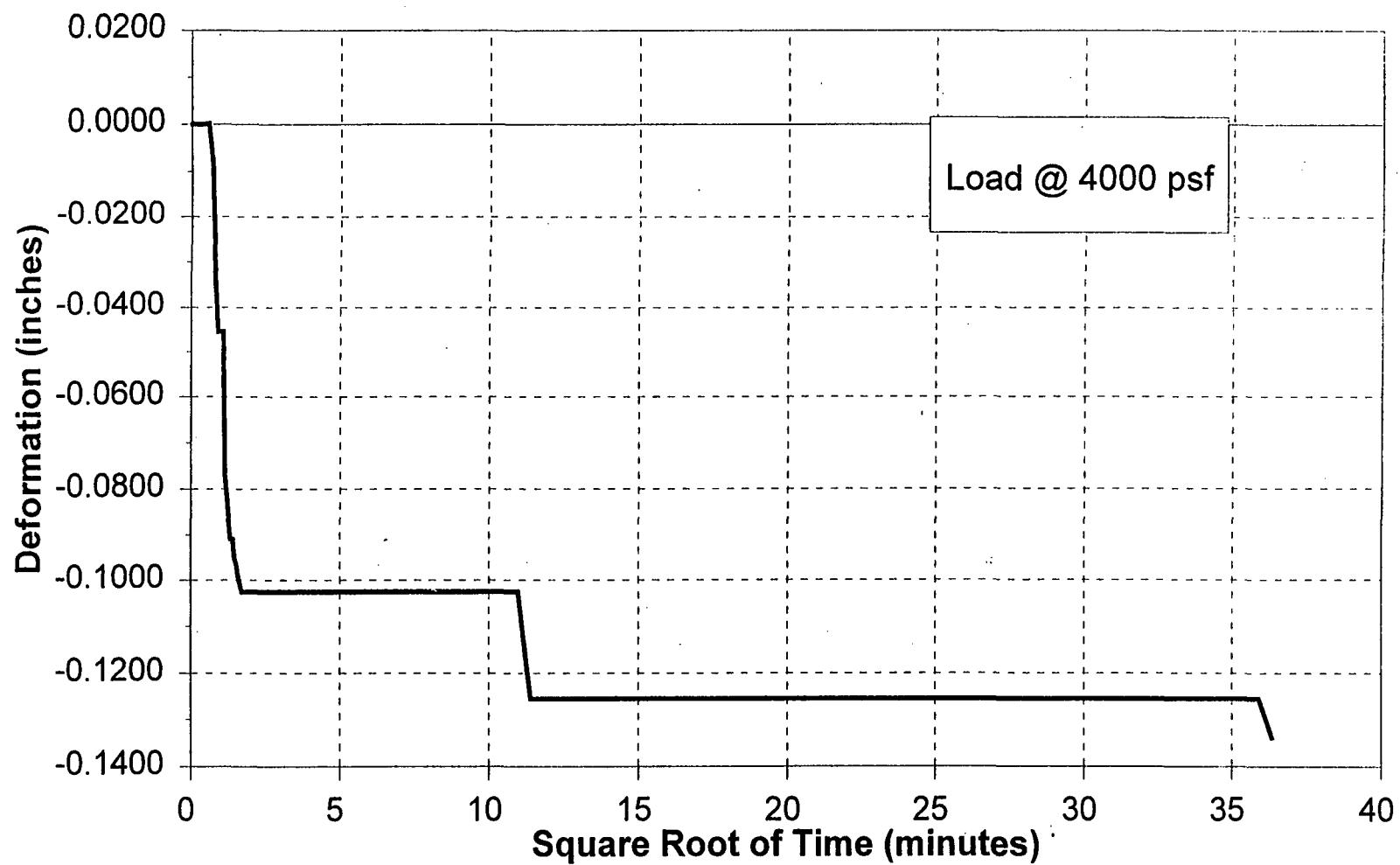
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



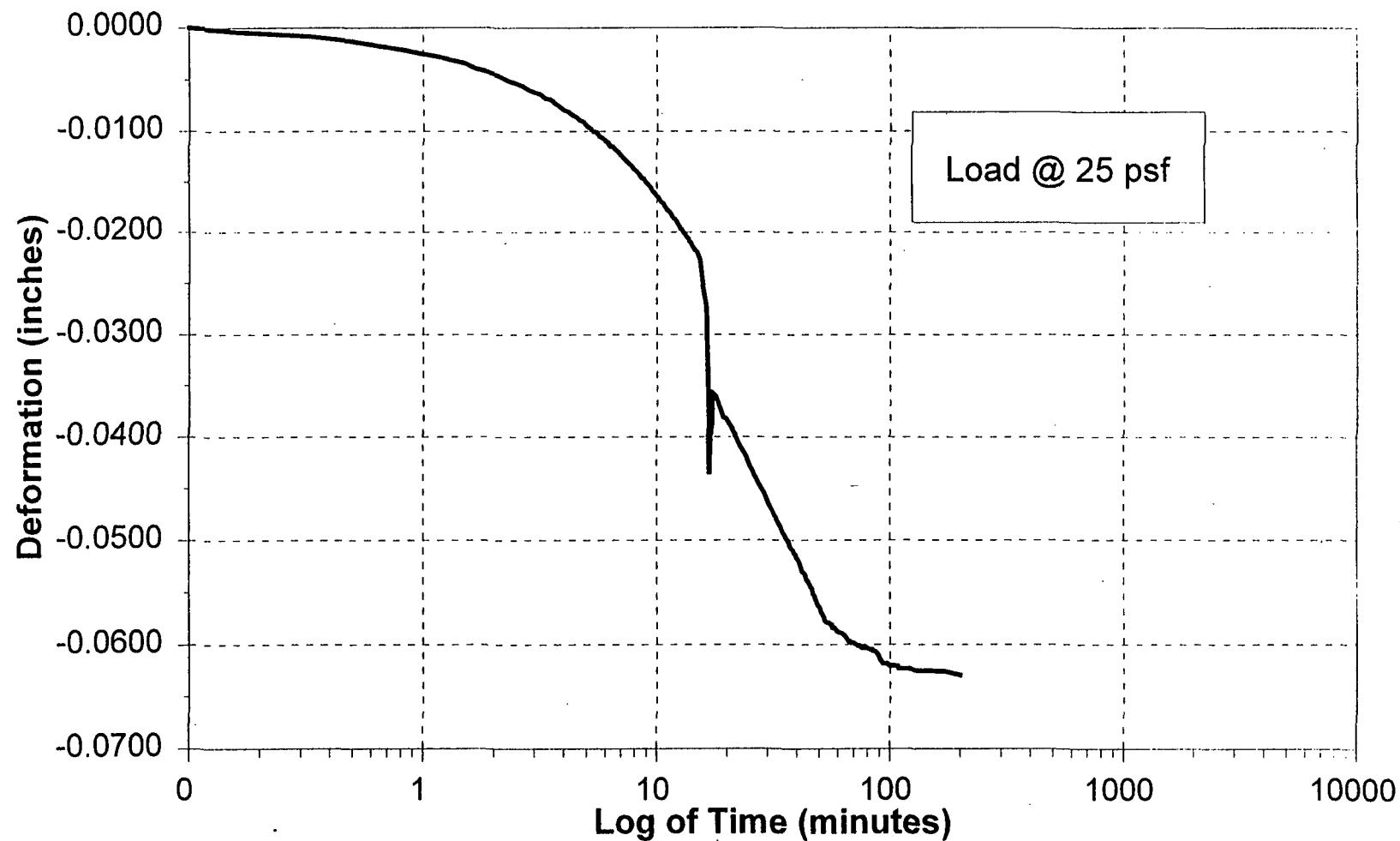
Time Rate of Consolidation

Sample: Pond 13S, BH-1 @ 14.5 feet



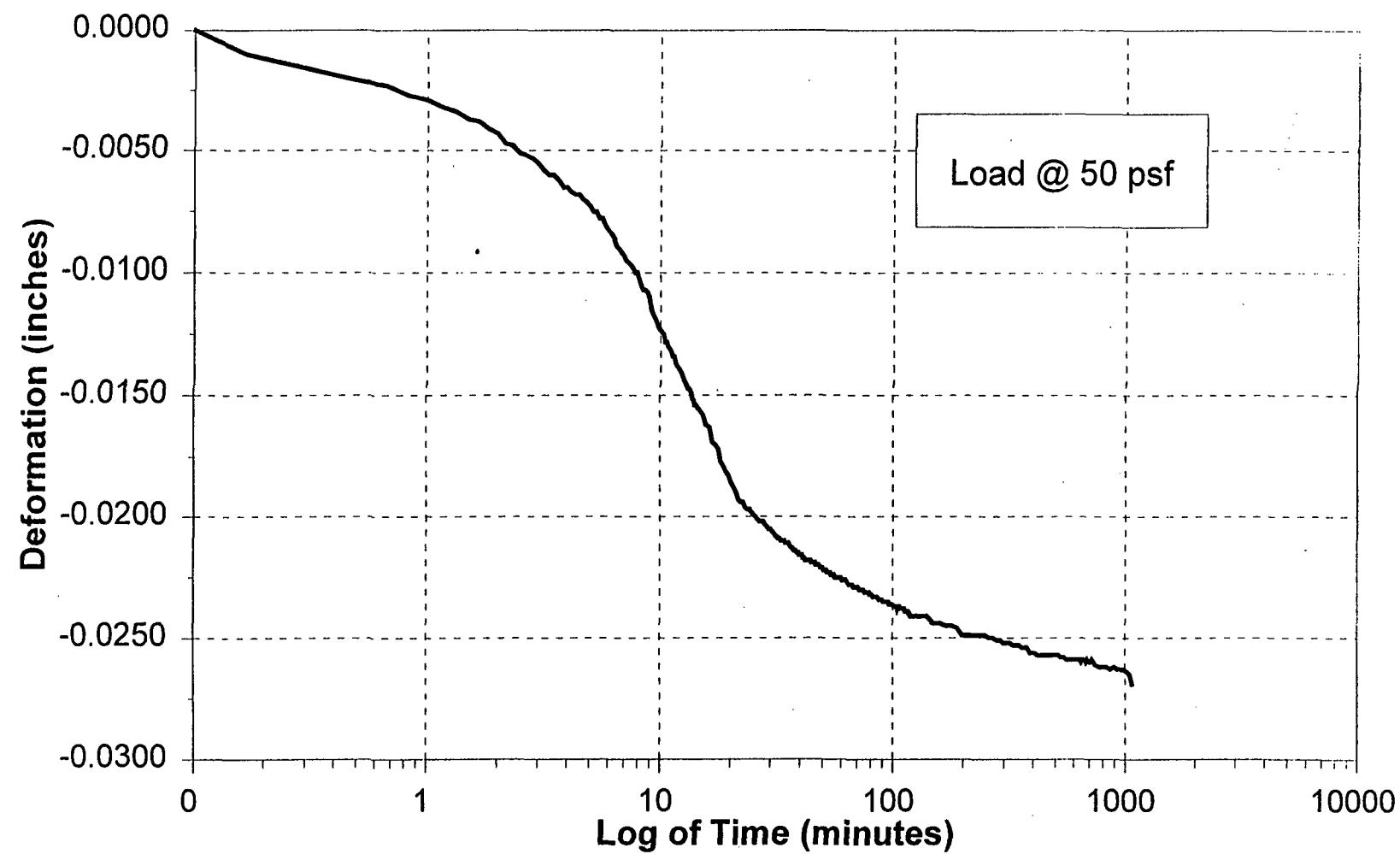
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

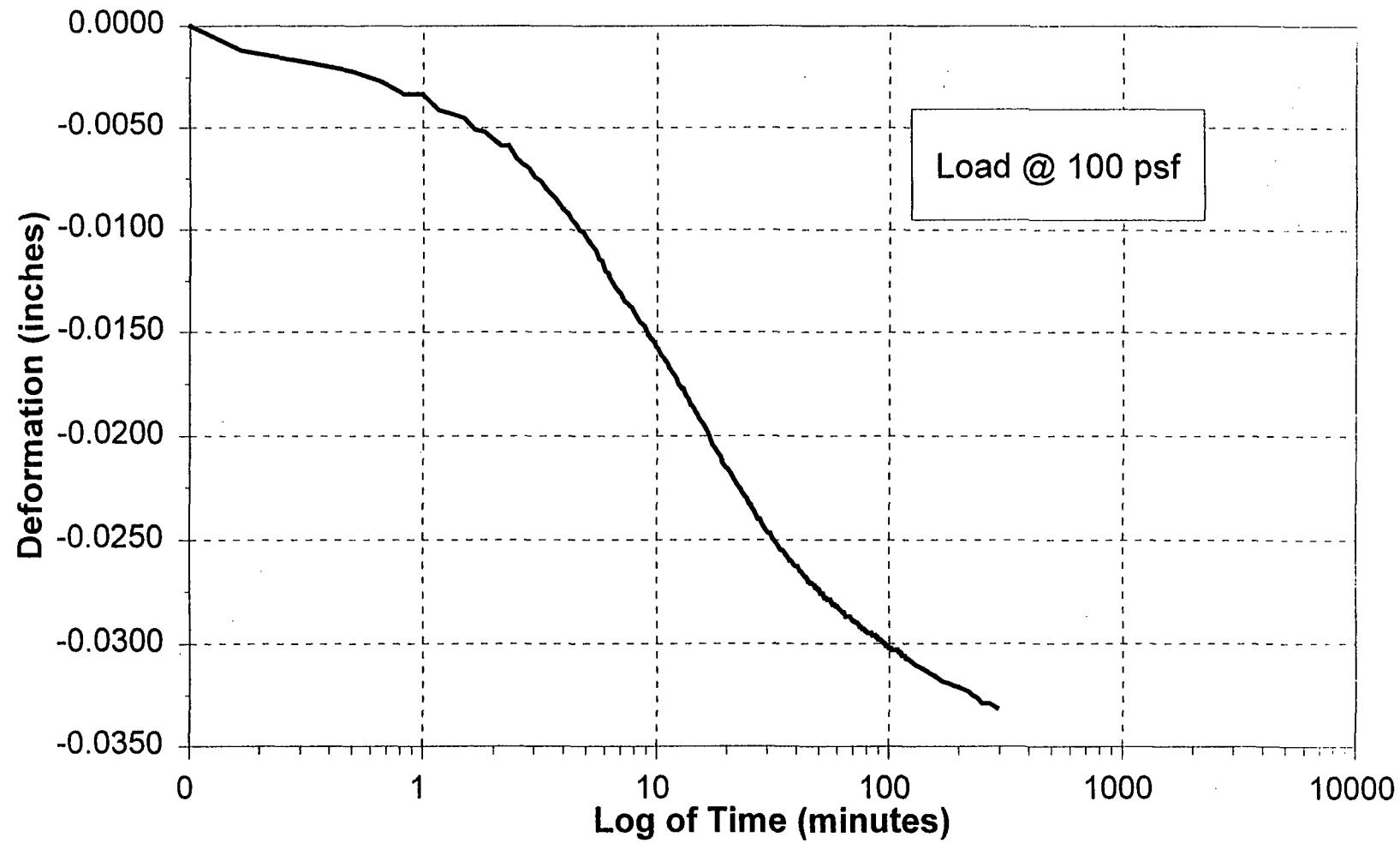


Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

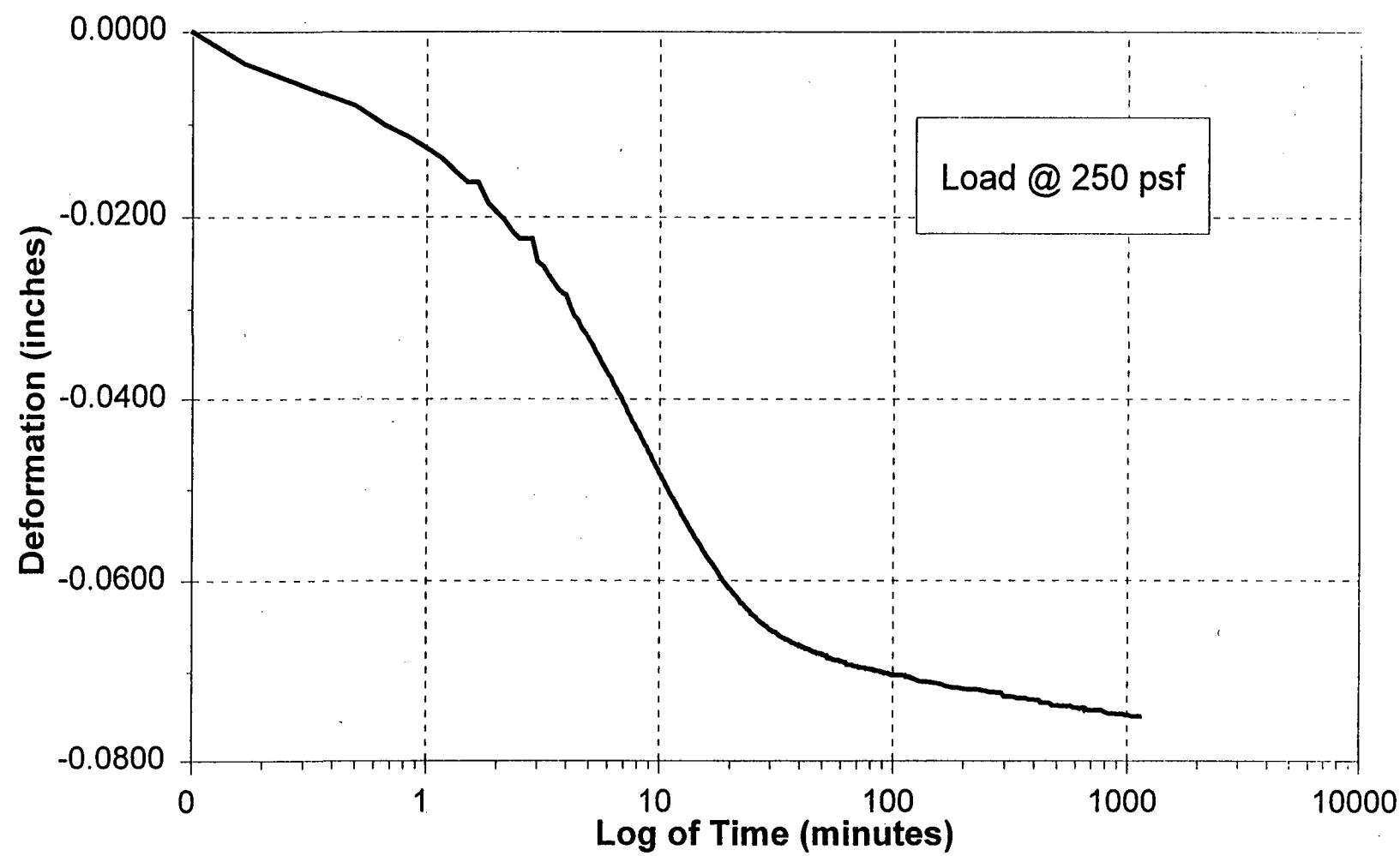


Time Rate of Consolidation
Sample: Pond 8E, BH-1 @ 7 feet



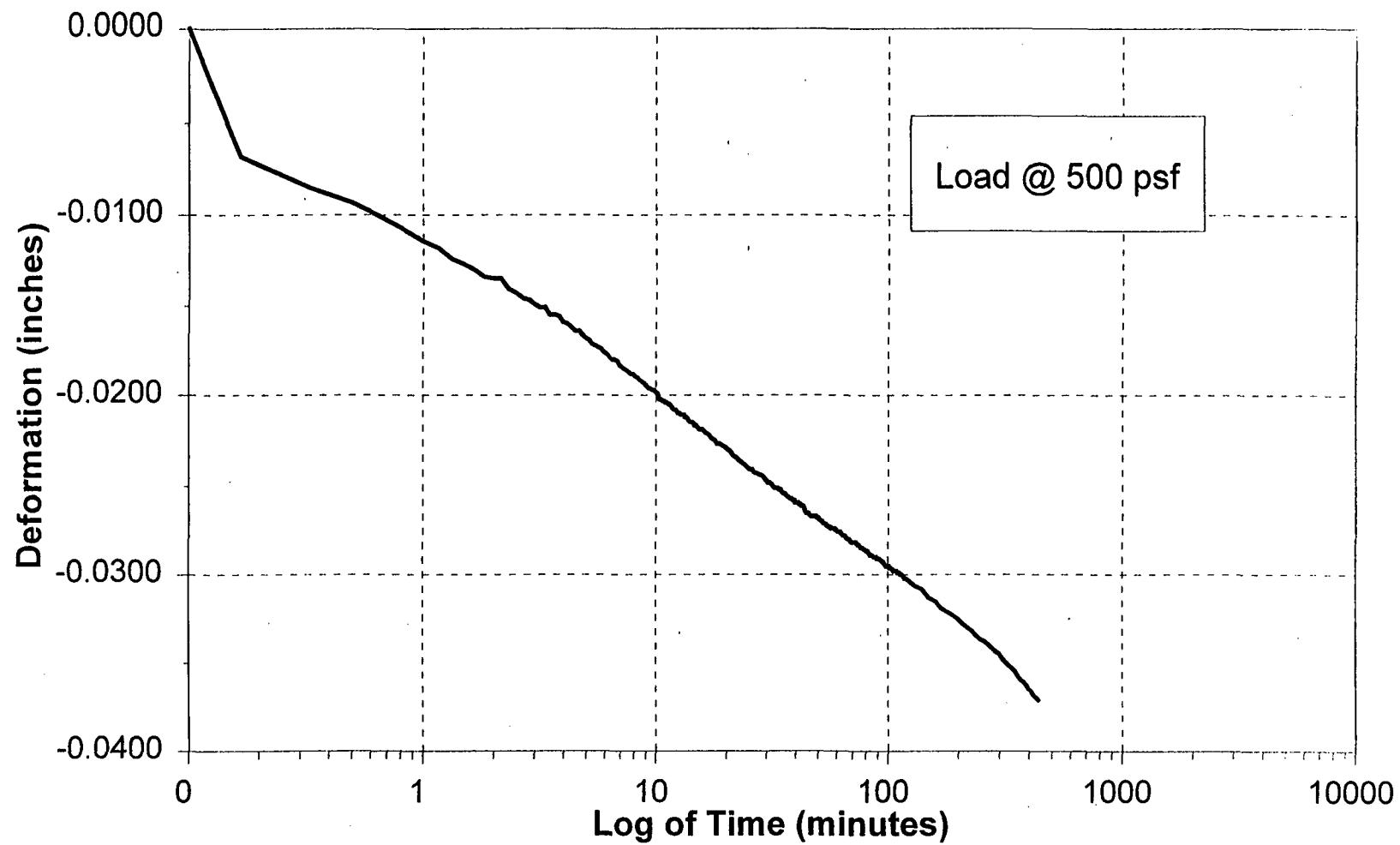
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



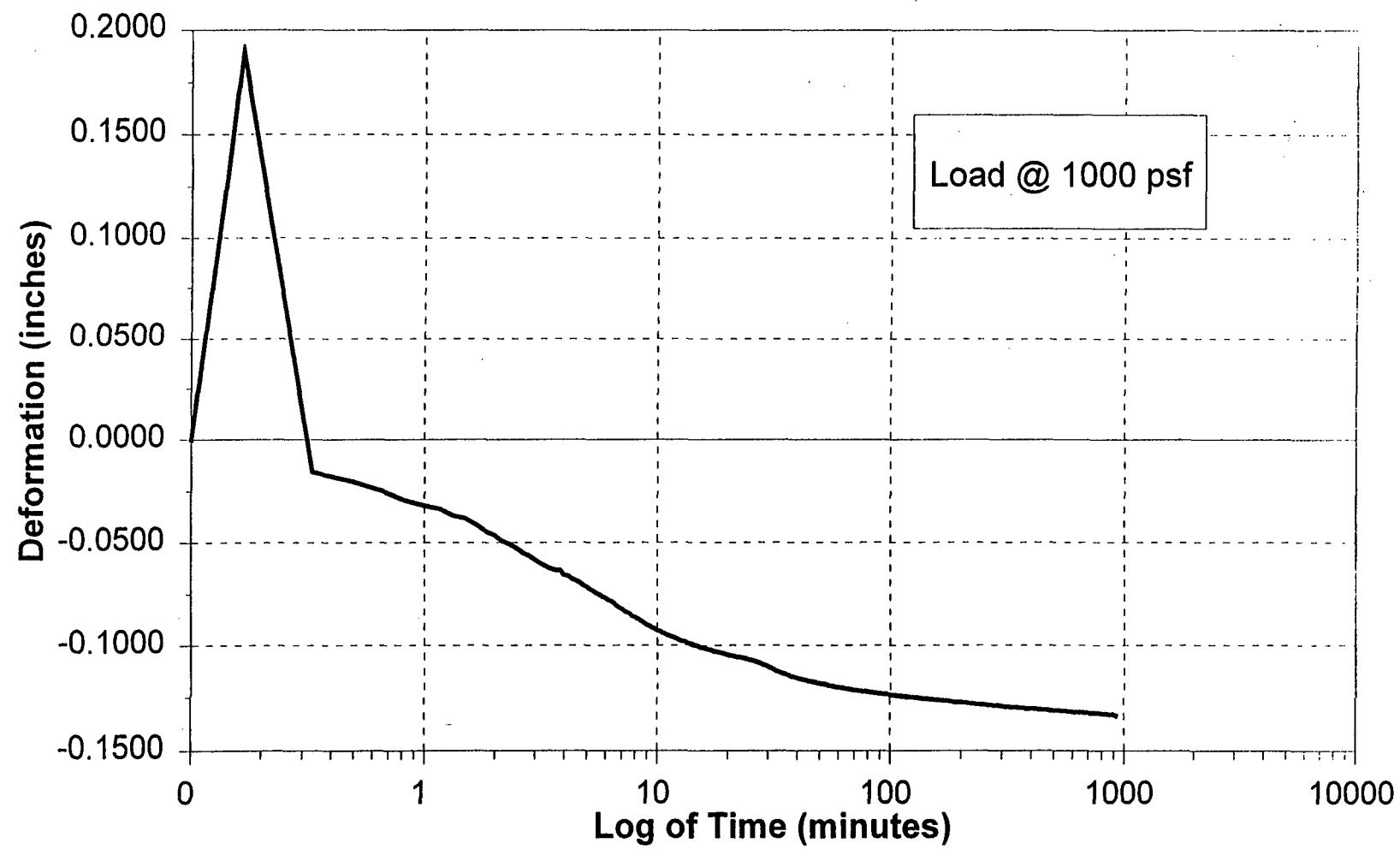
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet



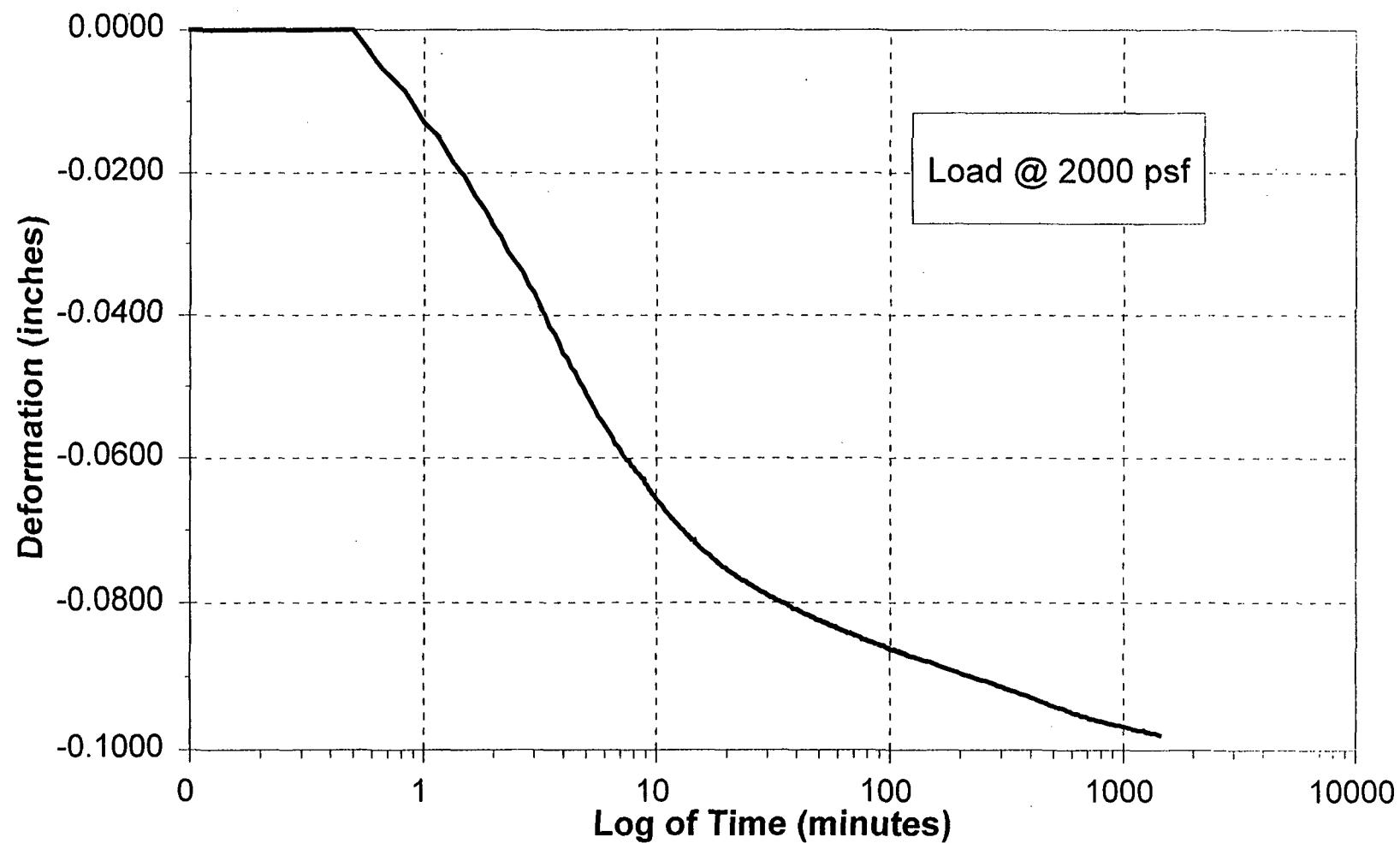
Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

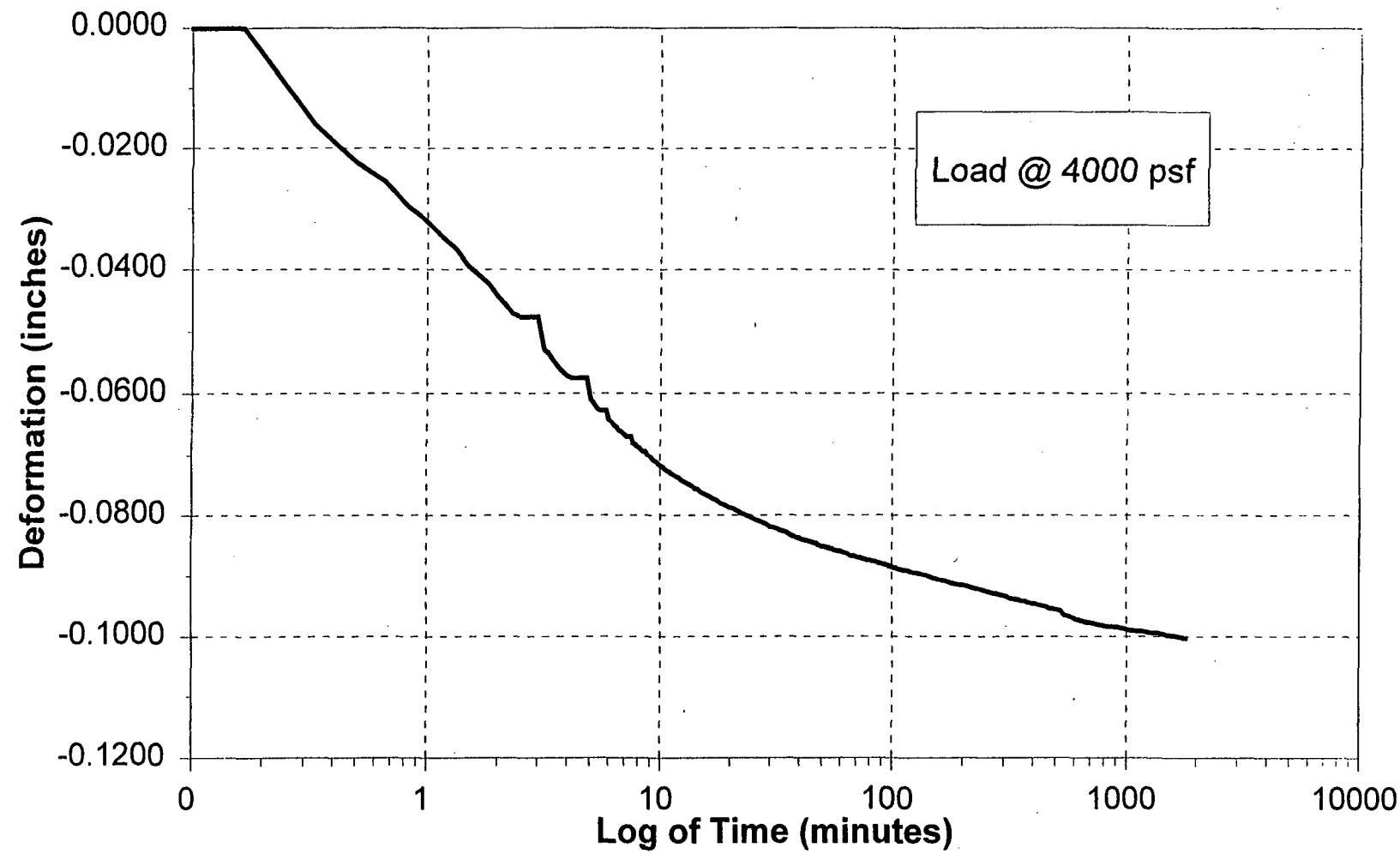


Time Rate of Consolidation

Sample: Pond 8E, BH-1 @ 7 feet

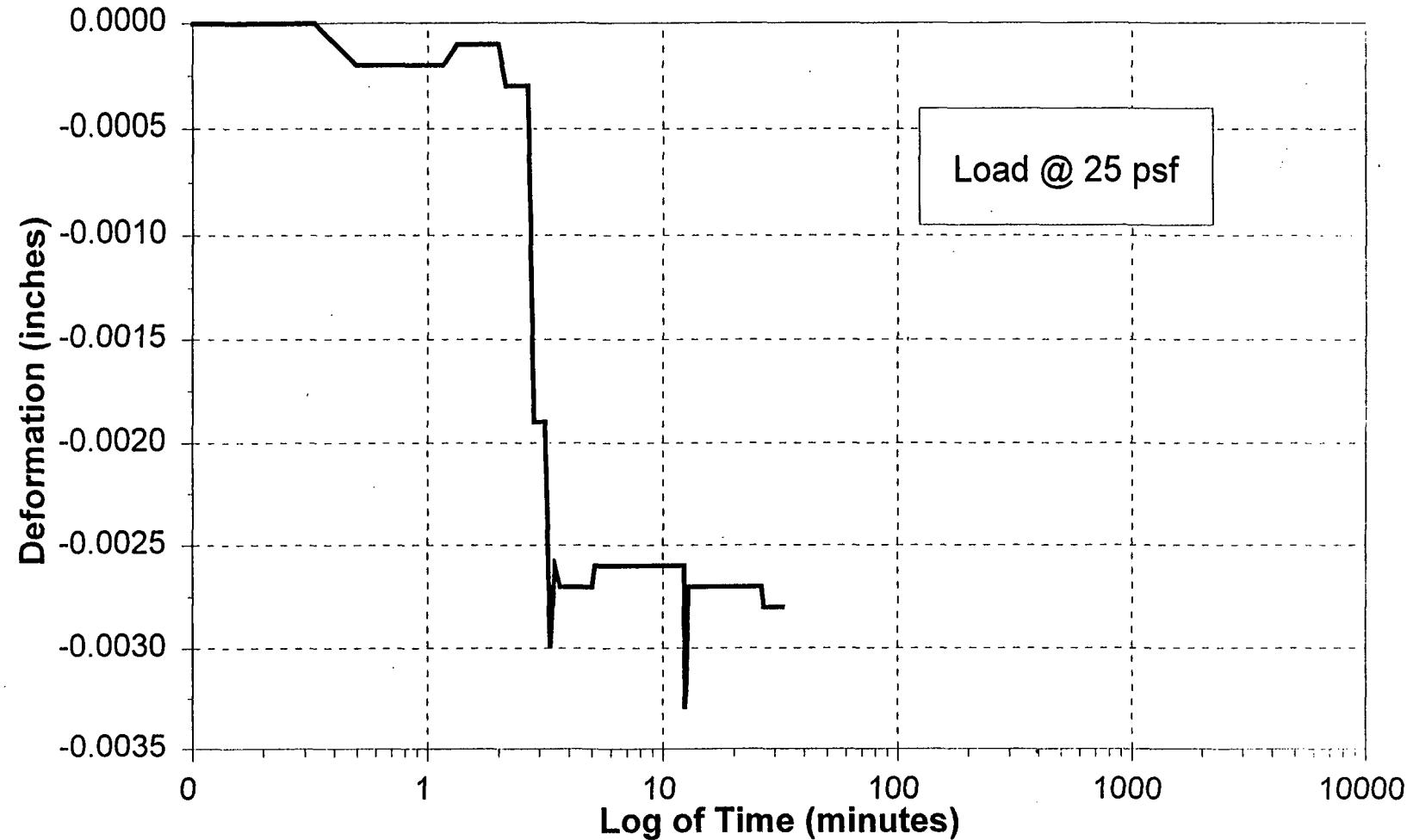


Time Rate of Consolidation
Sample: Pond 8E, BH-1 @ 7 feet



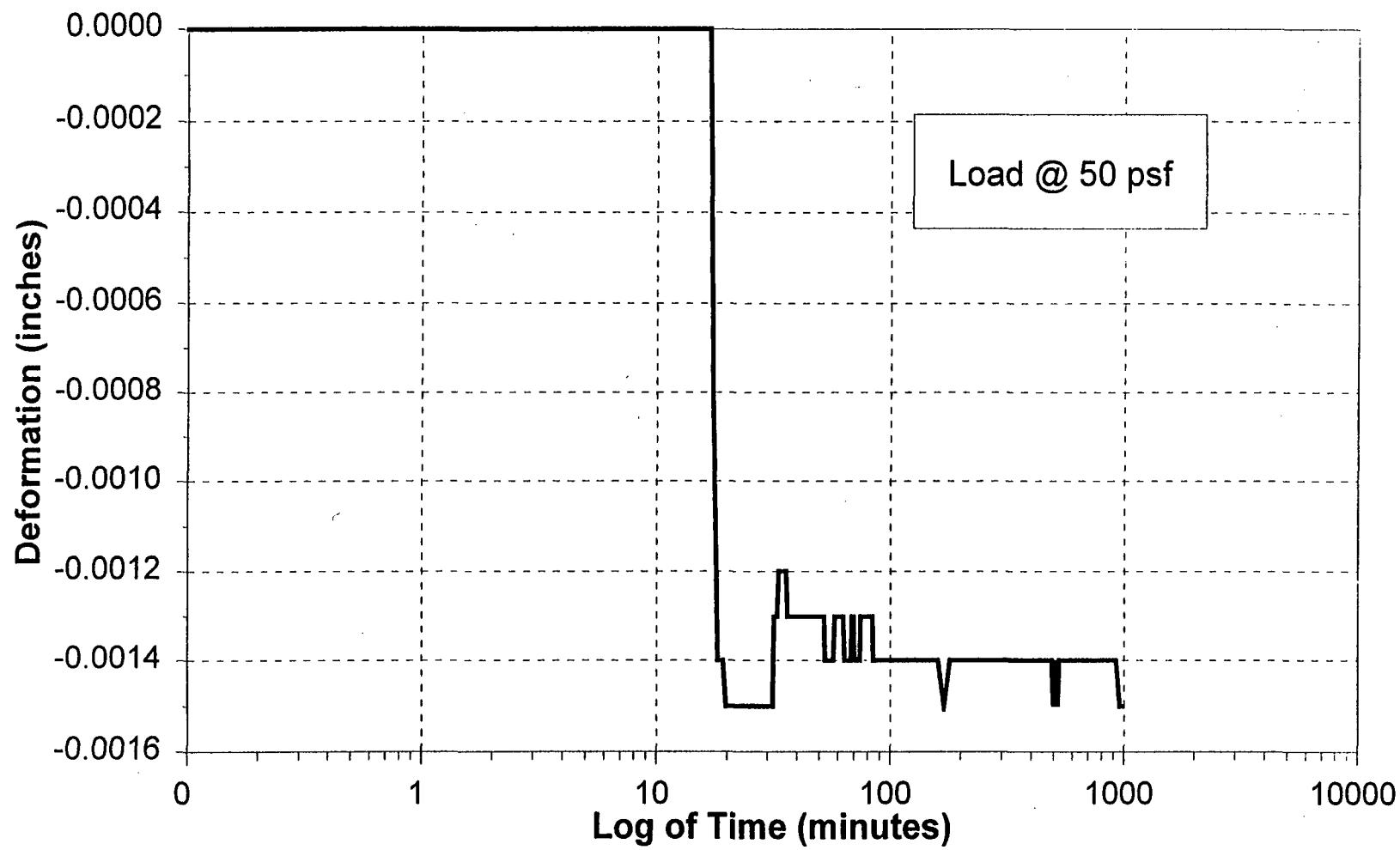
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



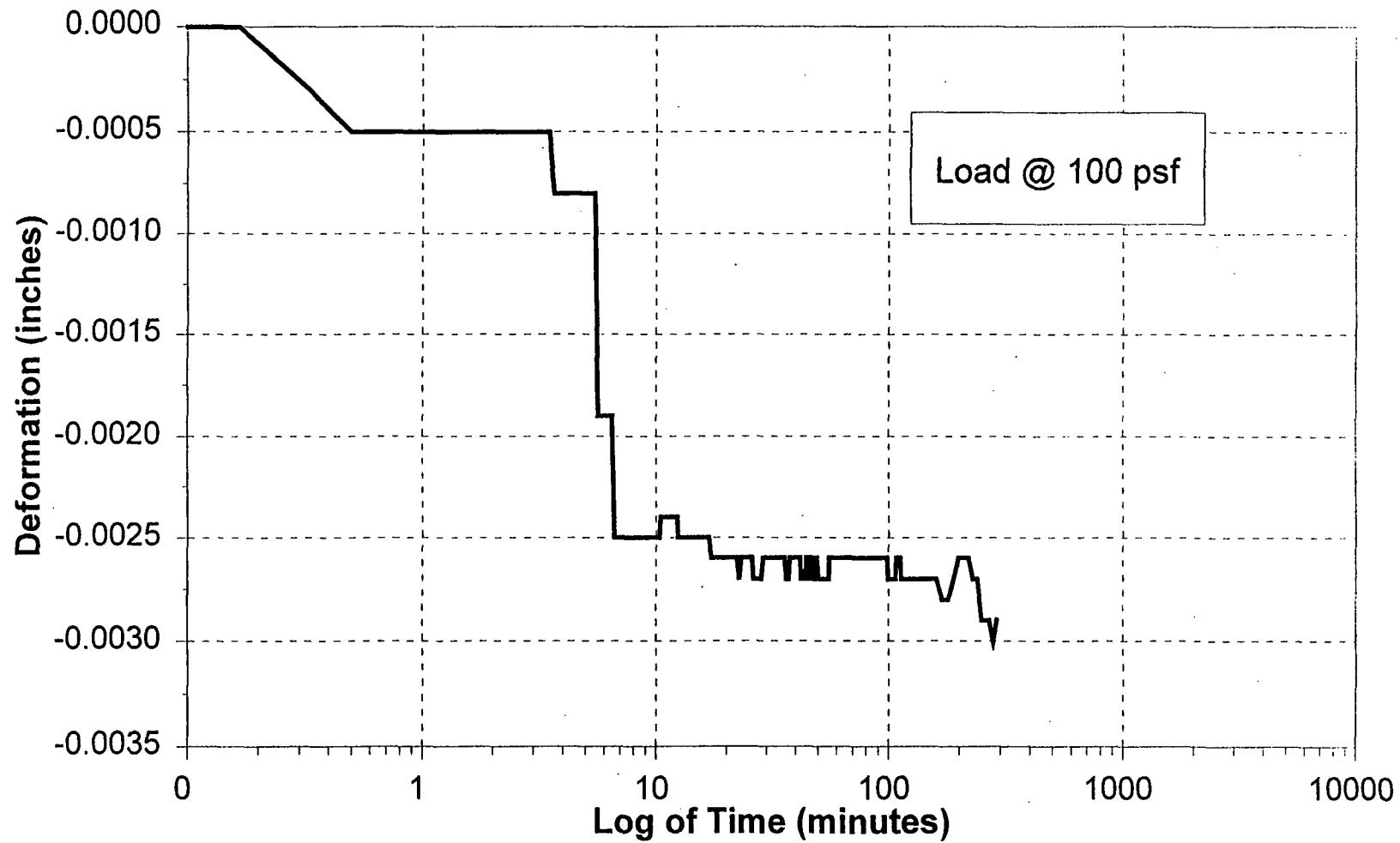
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



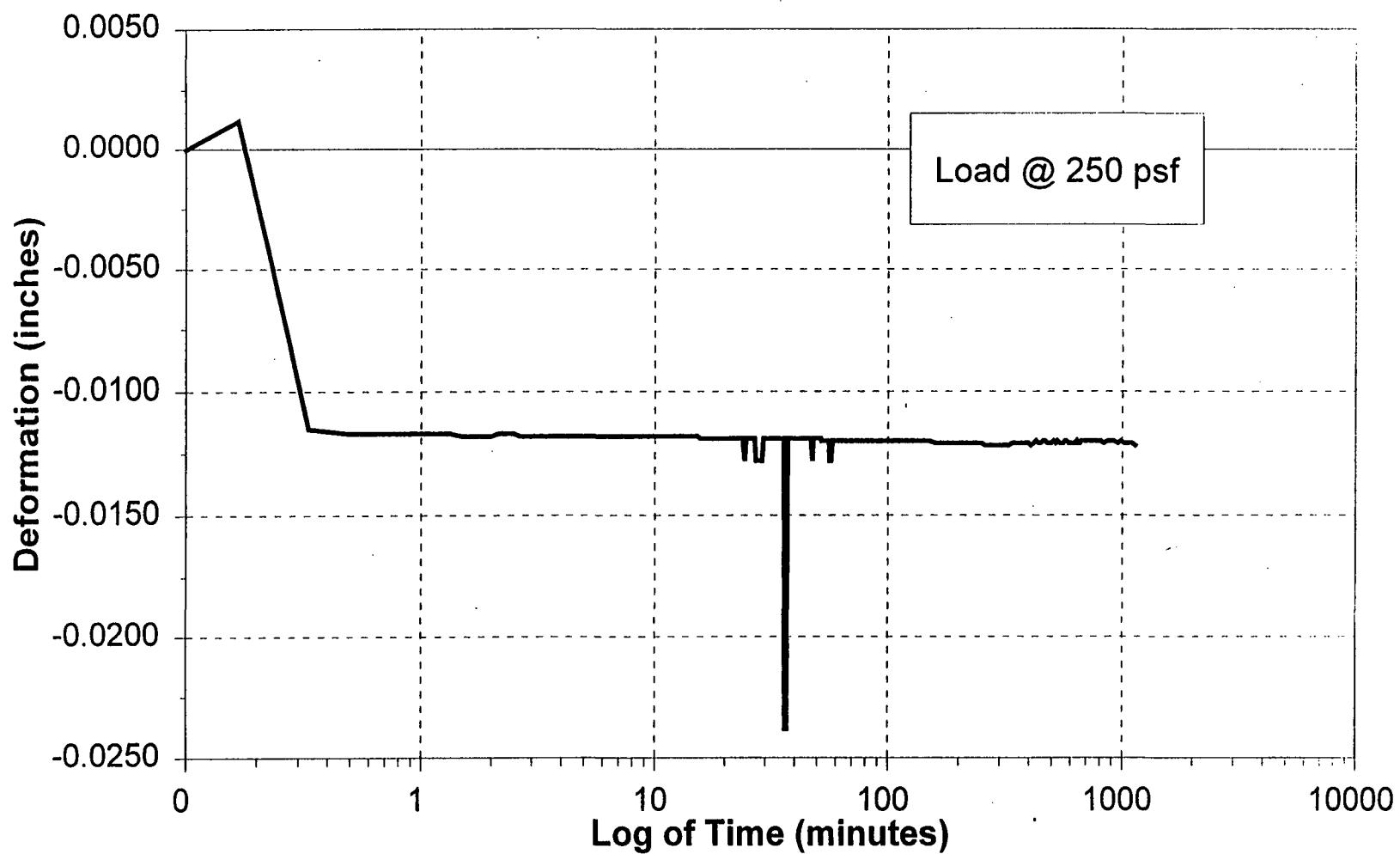
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



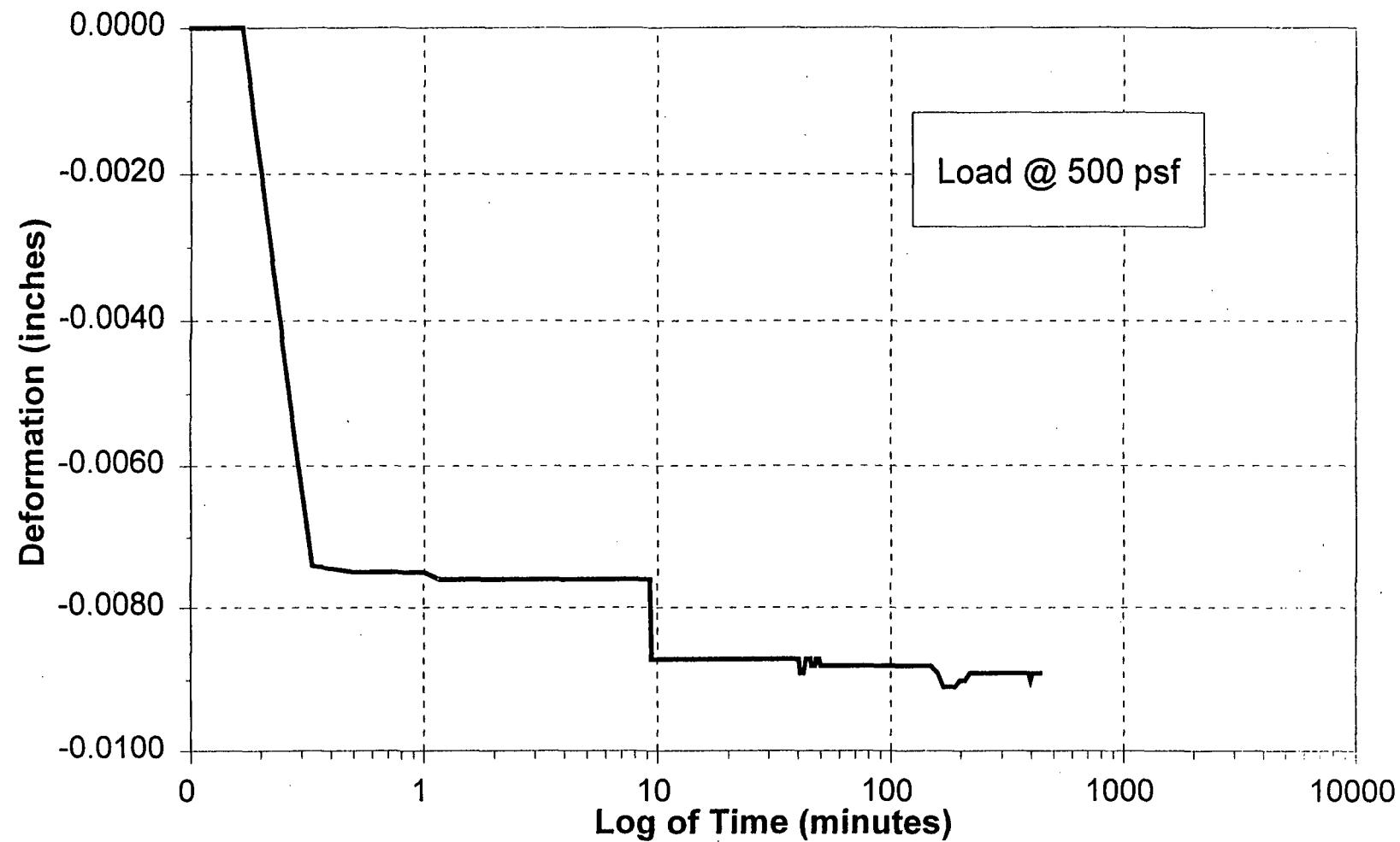
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



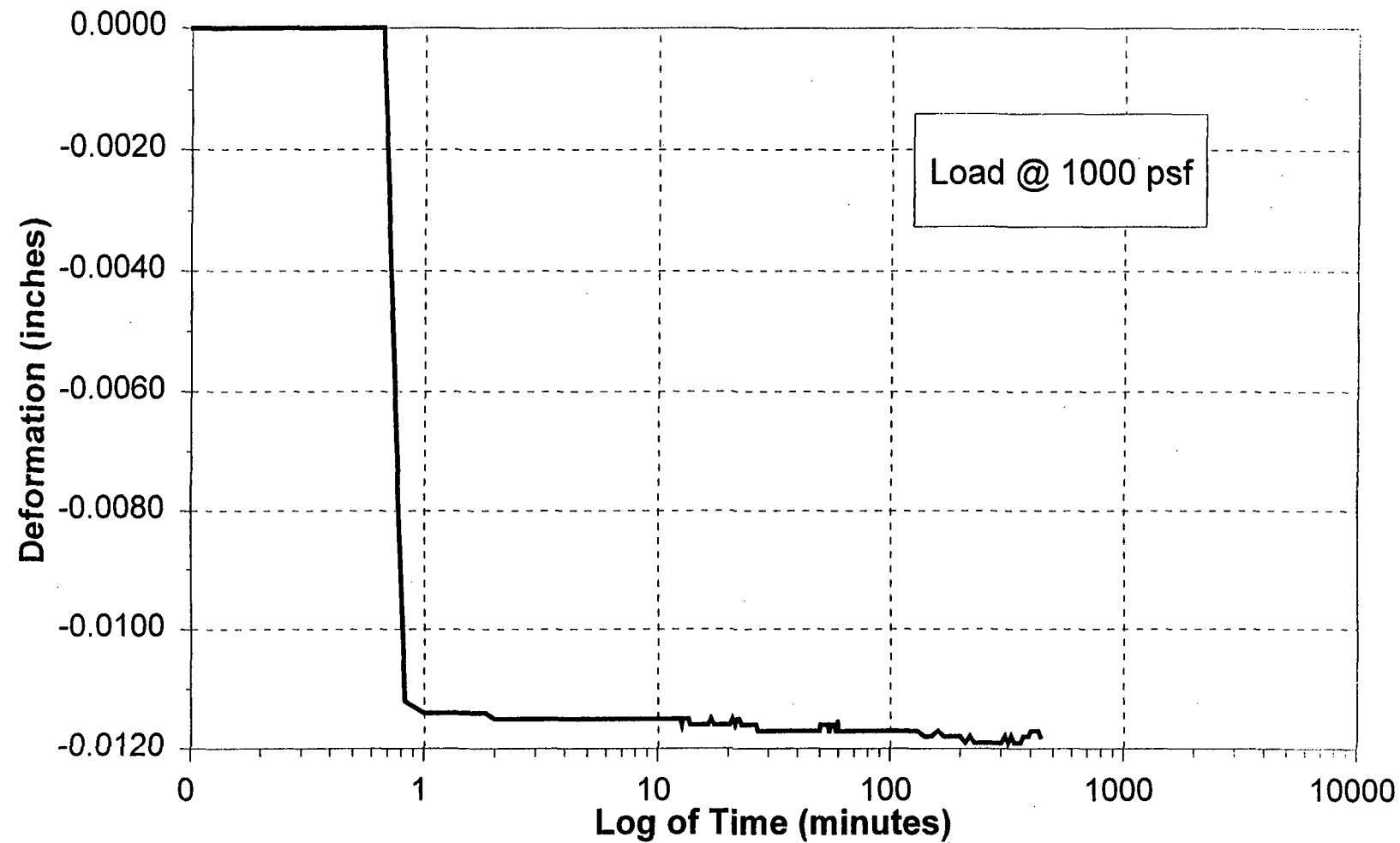
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



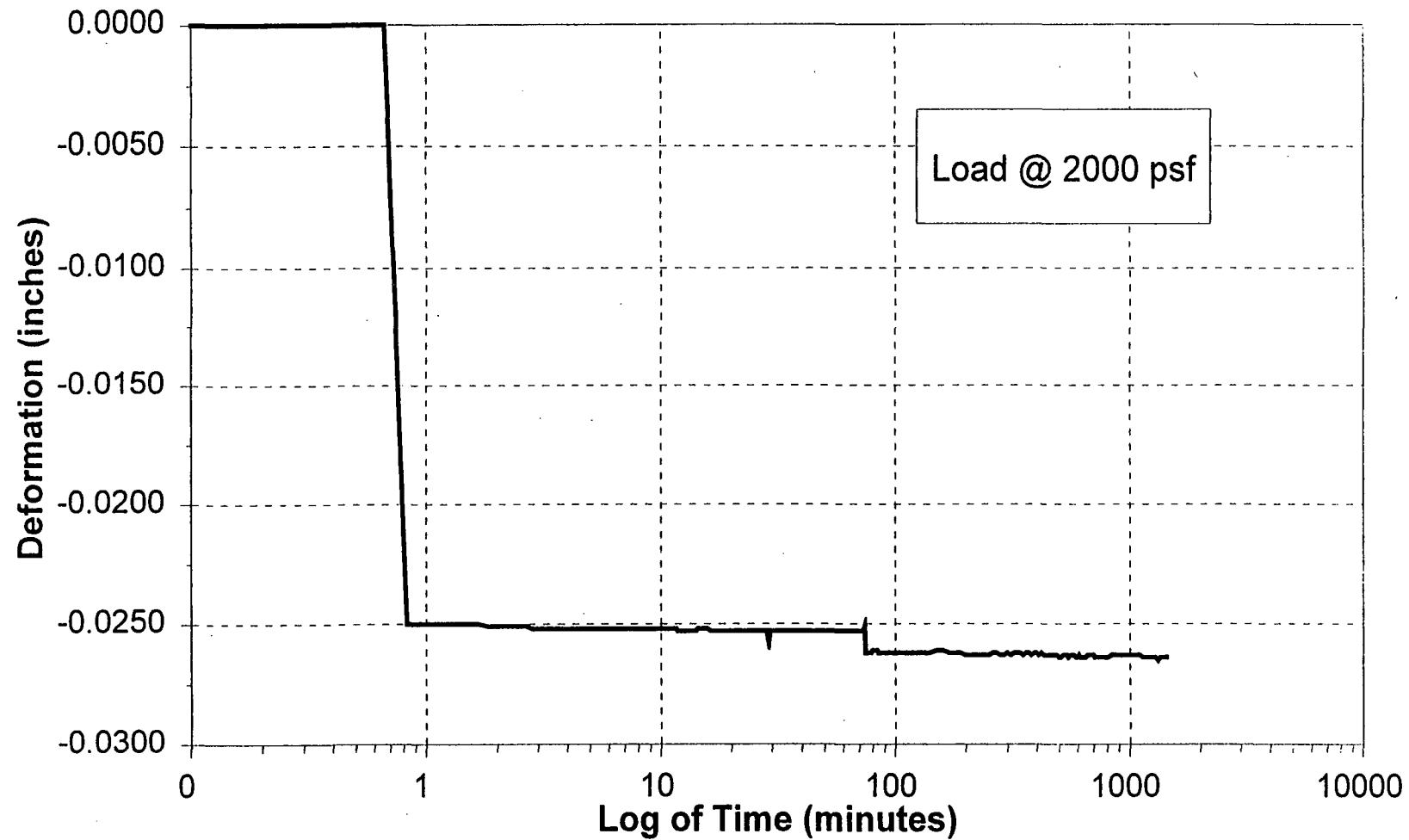
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



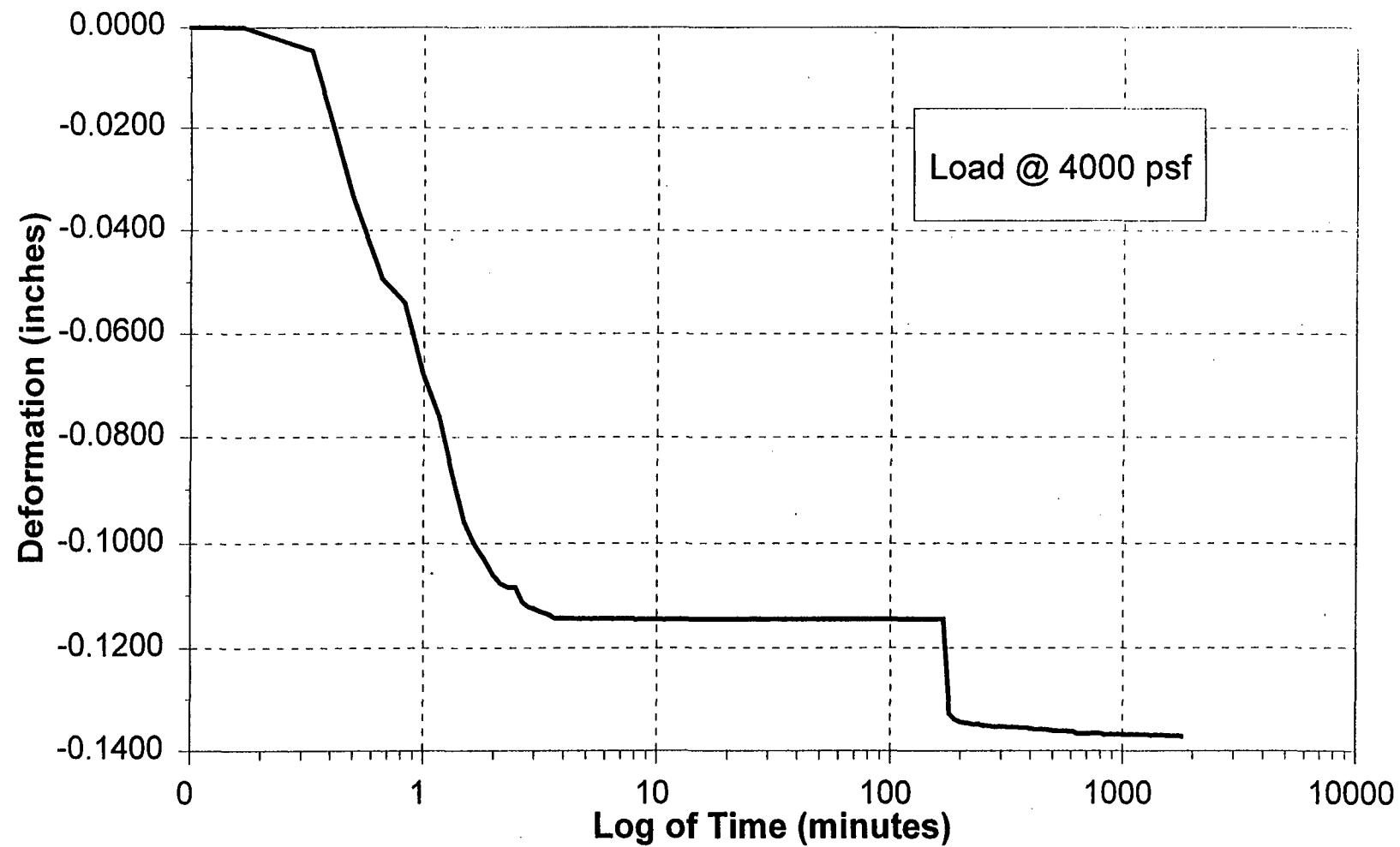
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



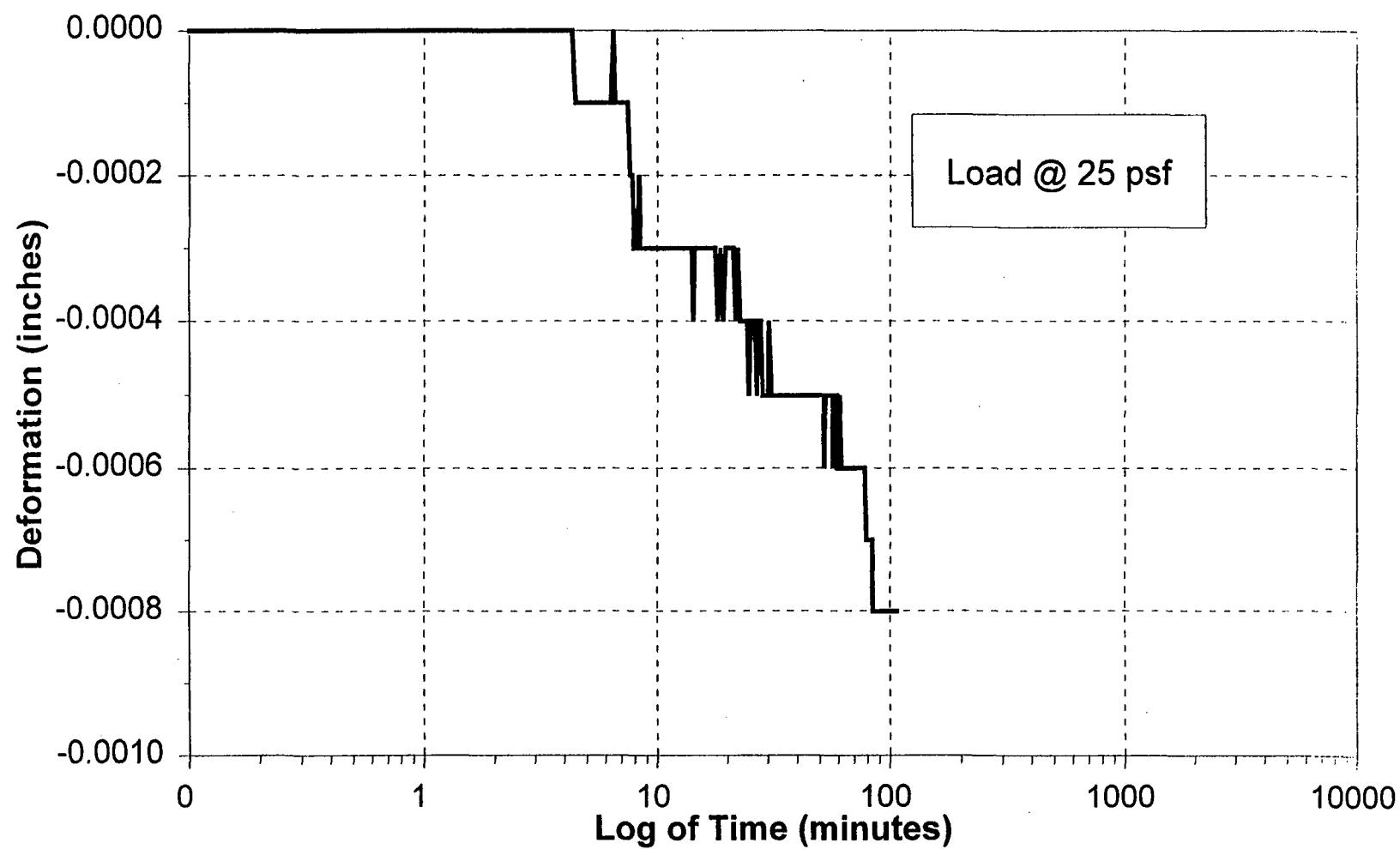
Time Rate of Consolidation

Sample: Pond 8E, BH-2 @ 10.2 feet



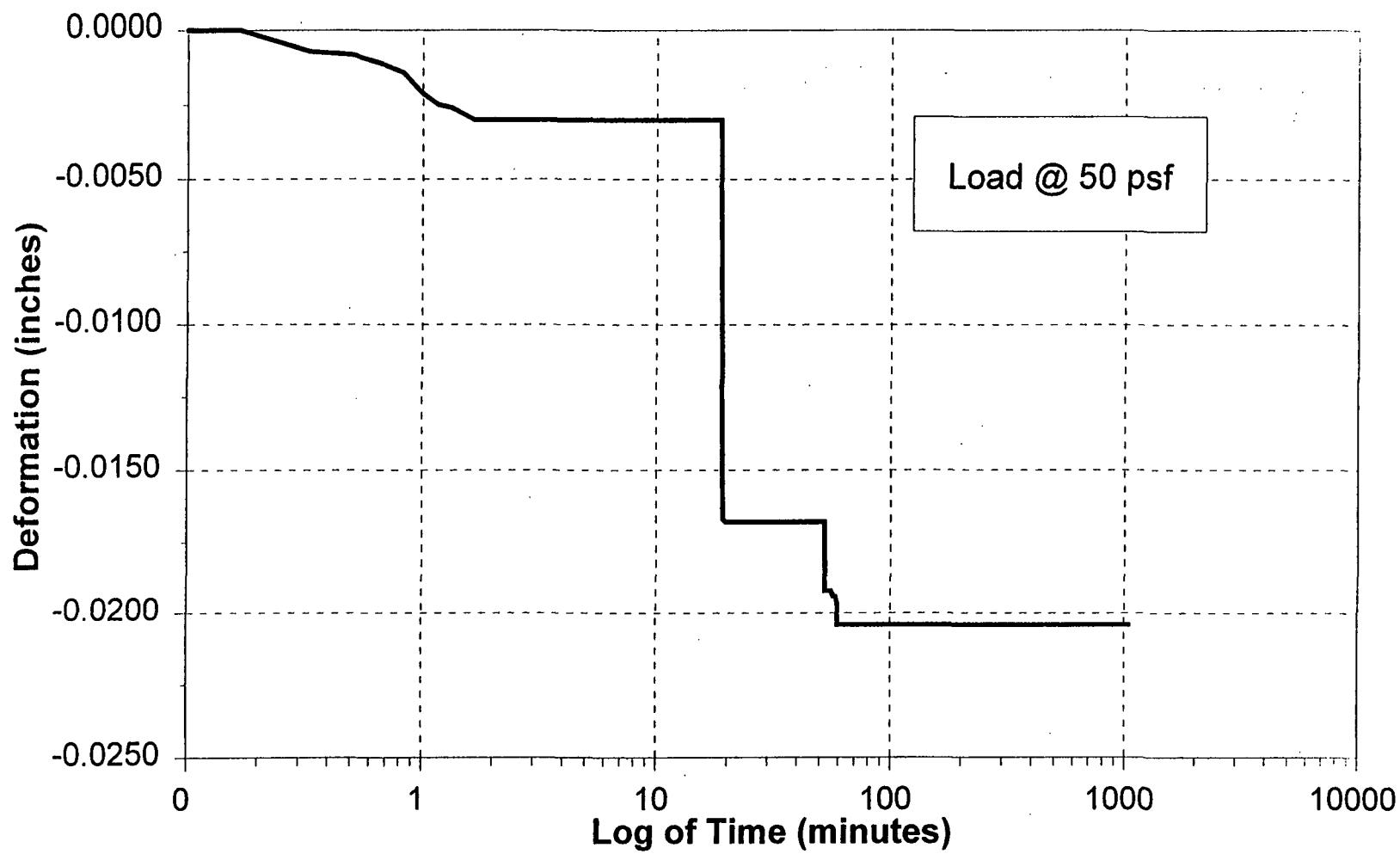
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



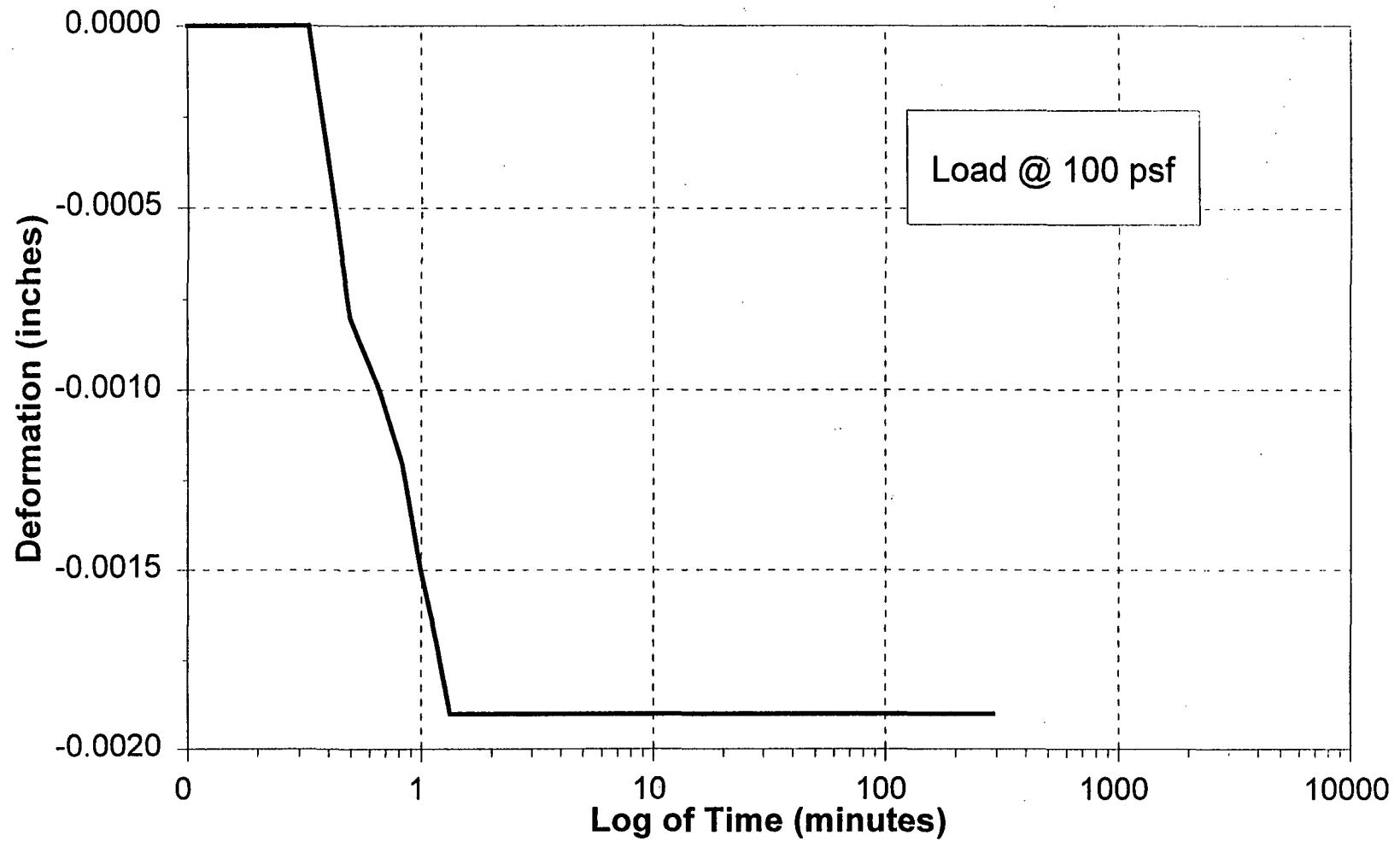
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



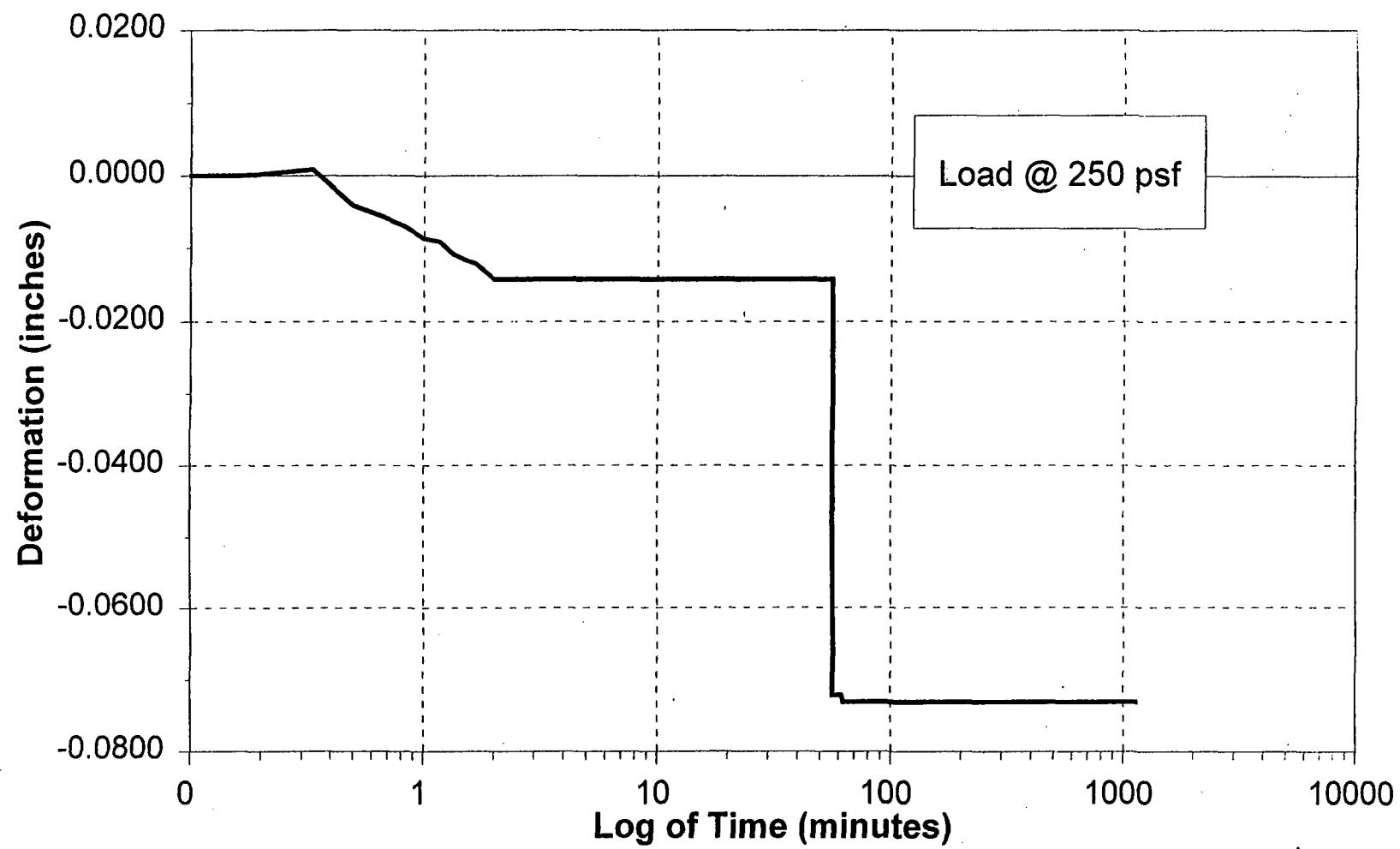
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



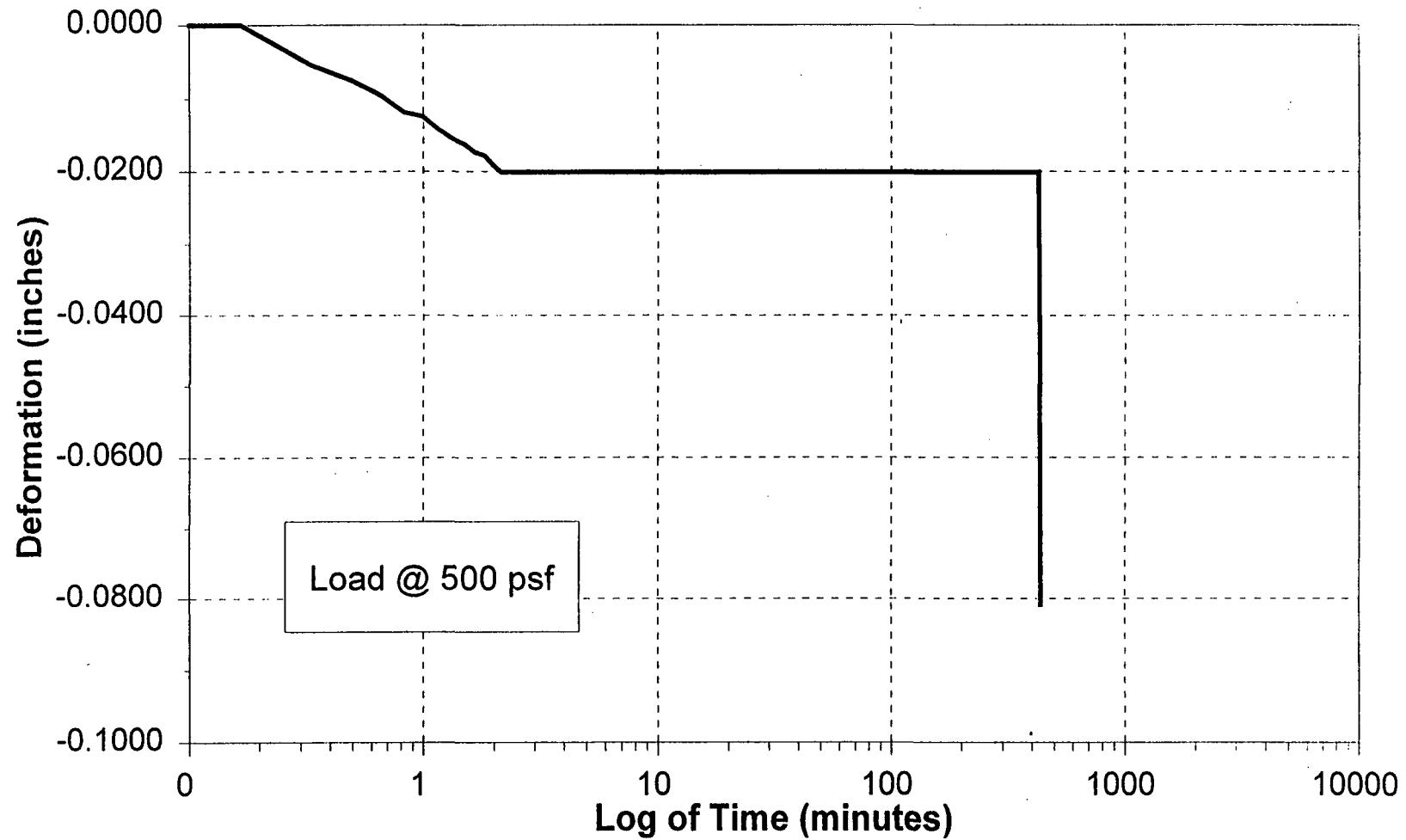
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



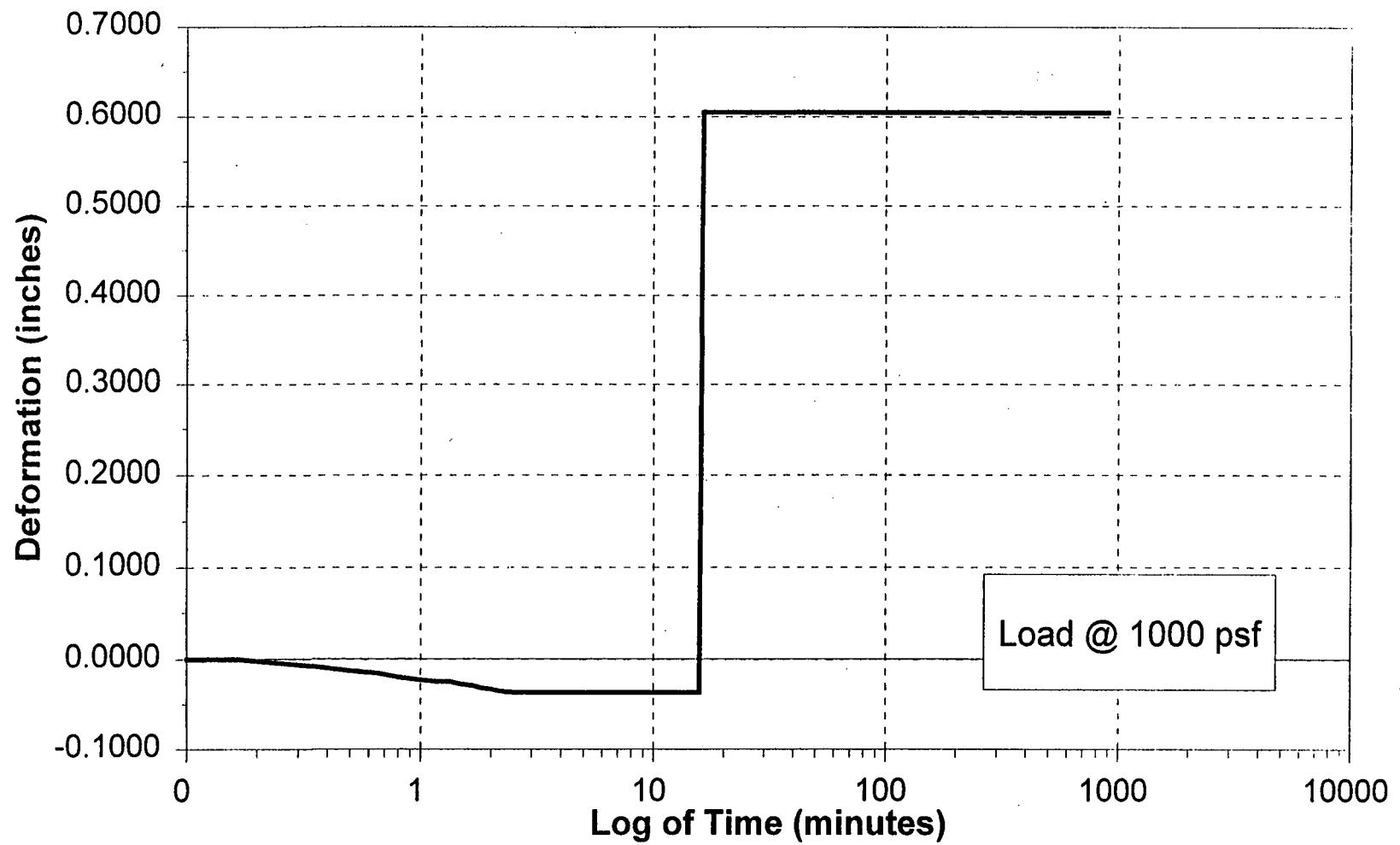
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



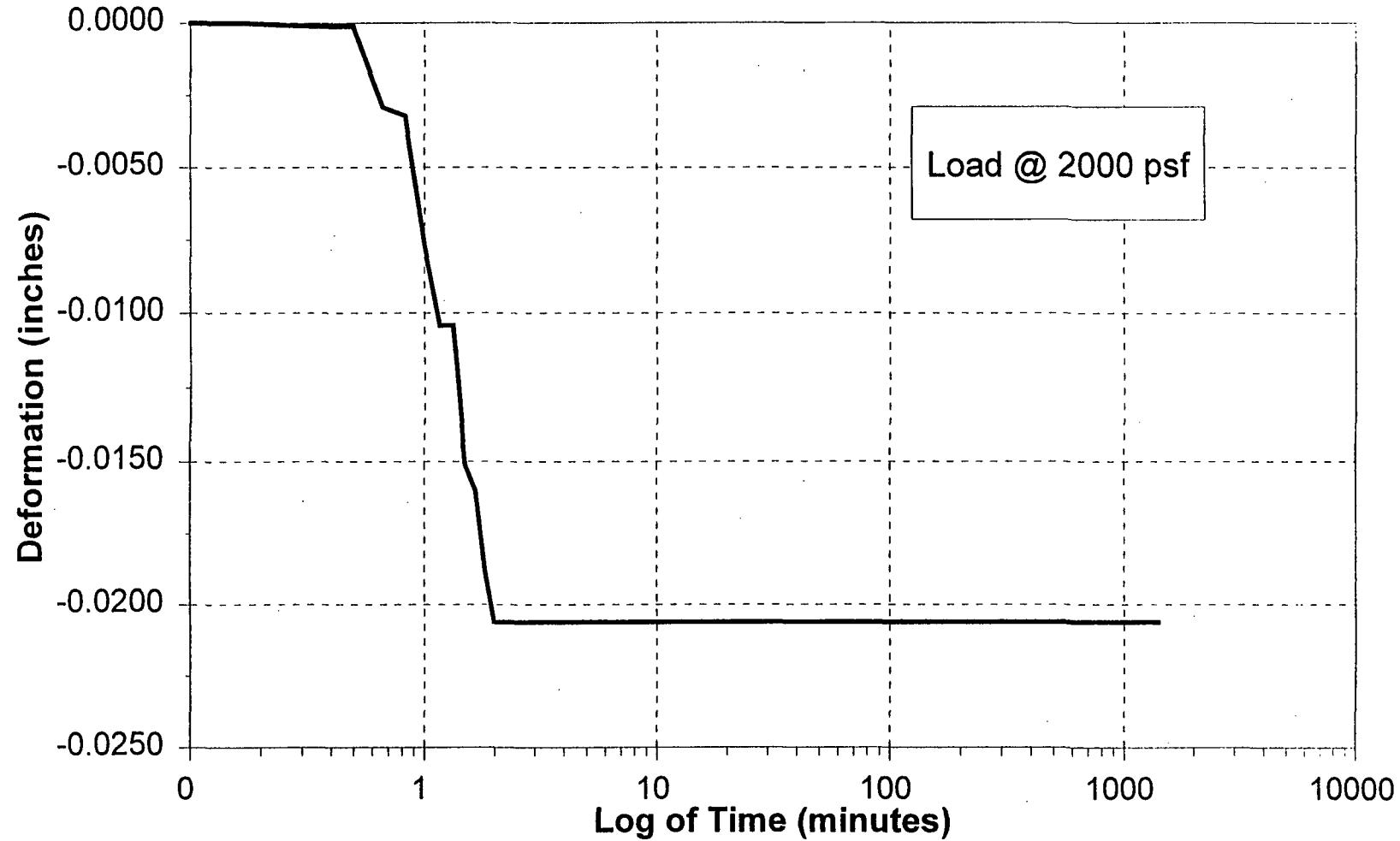
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



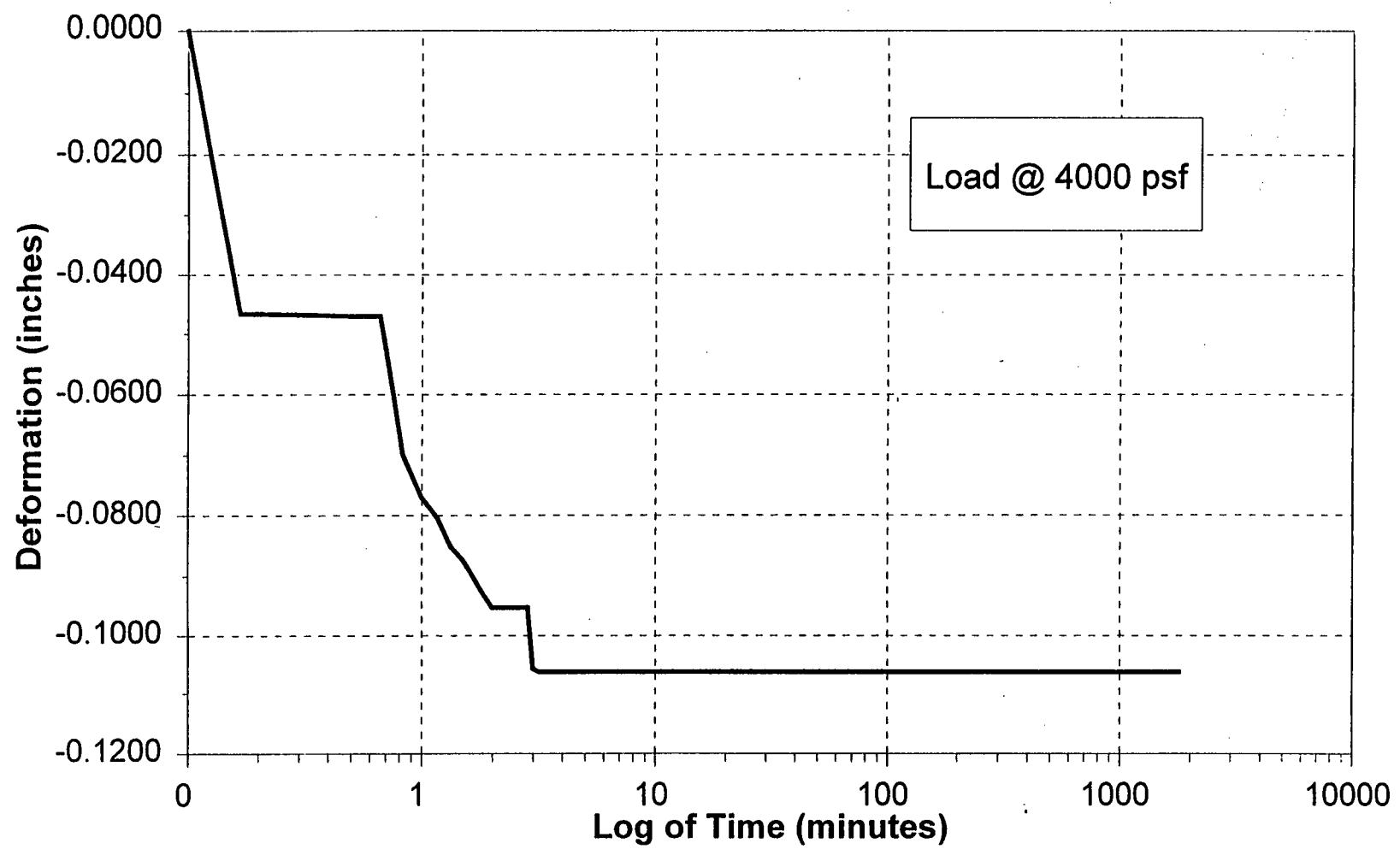
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



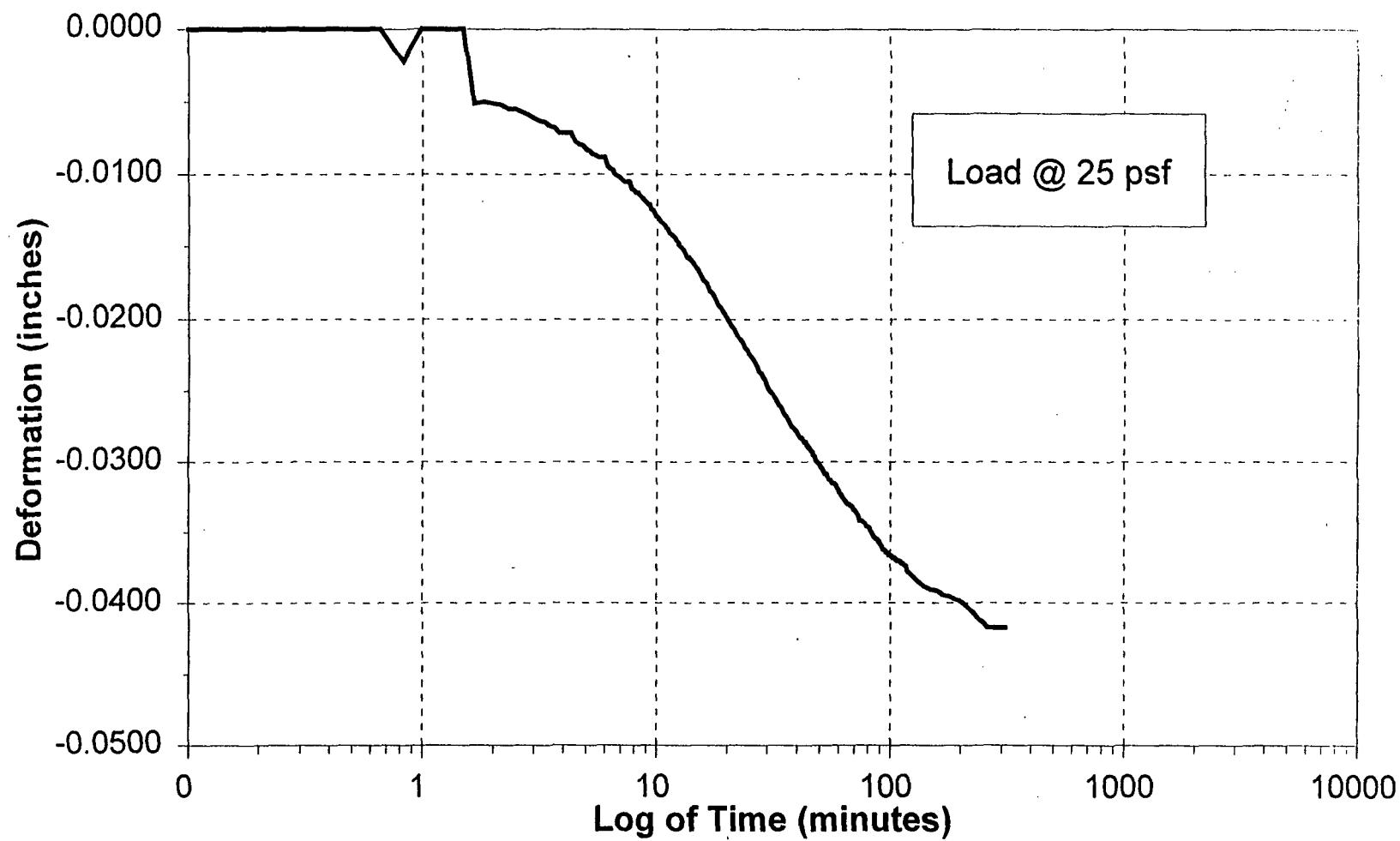
Time Rate of Consolidation

Sample: Pond 8E, BH-3 @ 13.5 feet



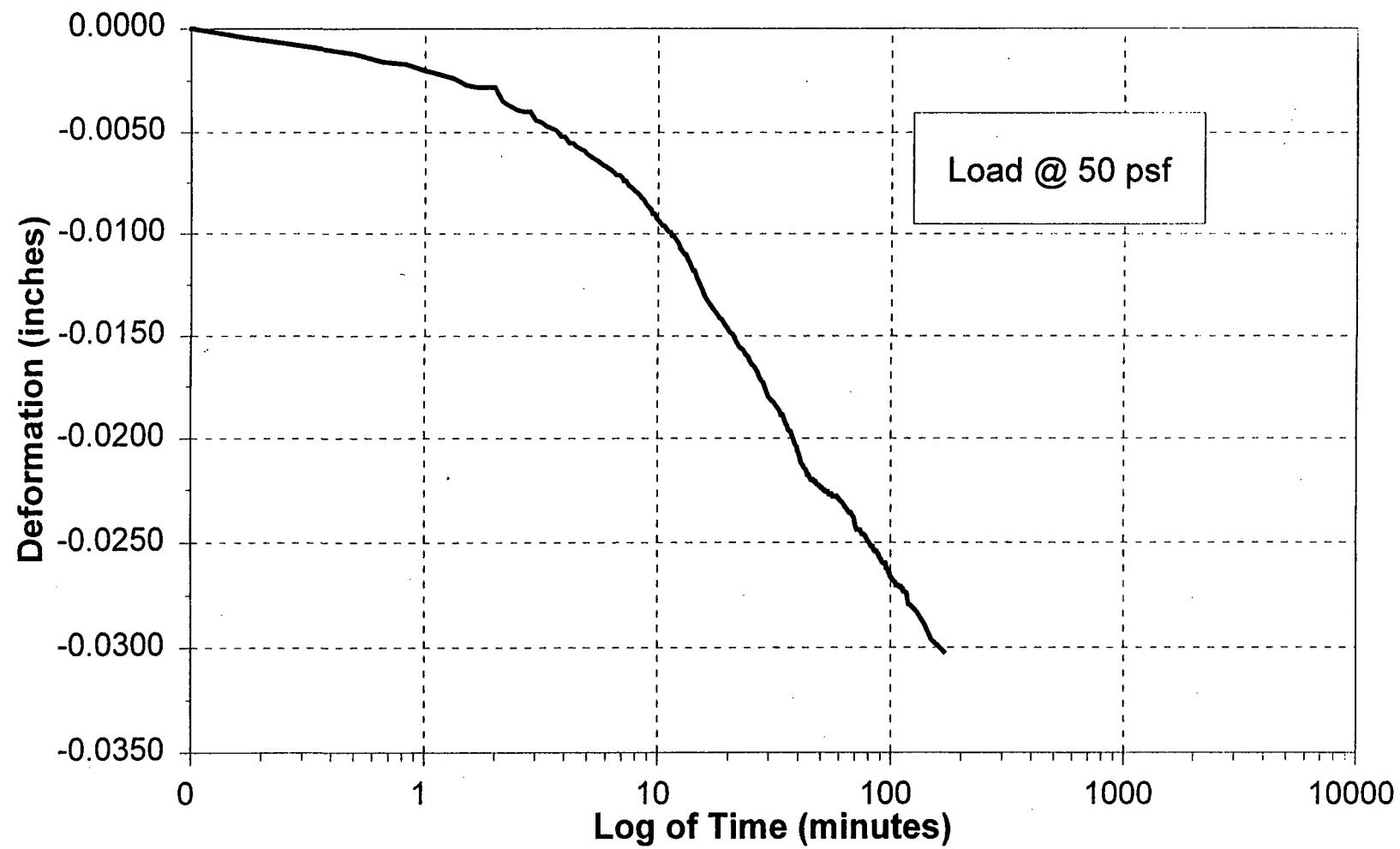
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



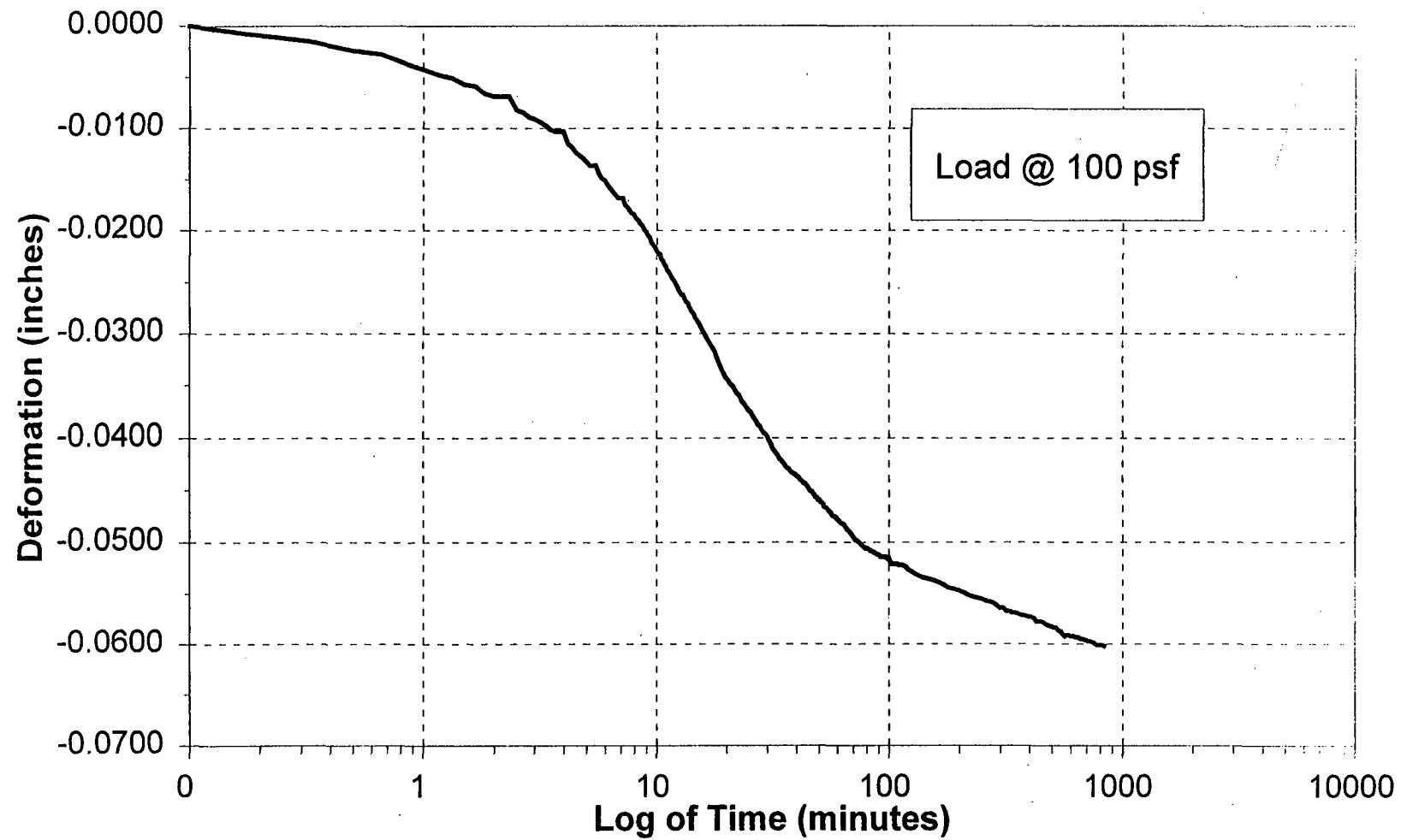
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



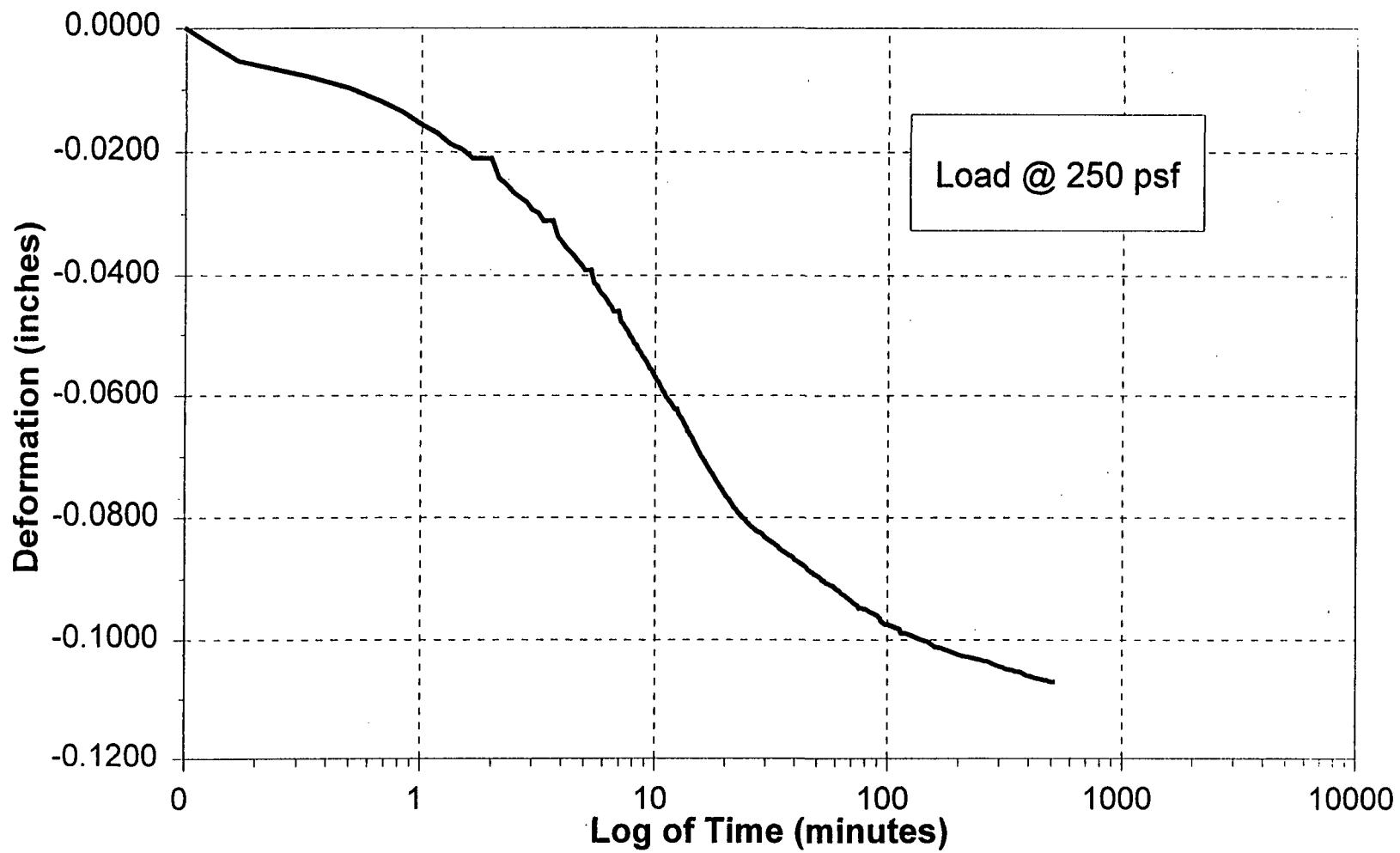
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



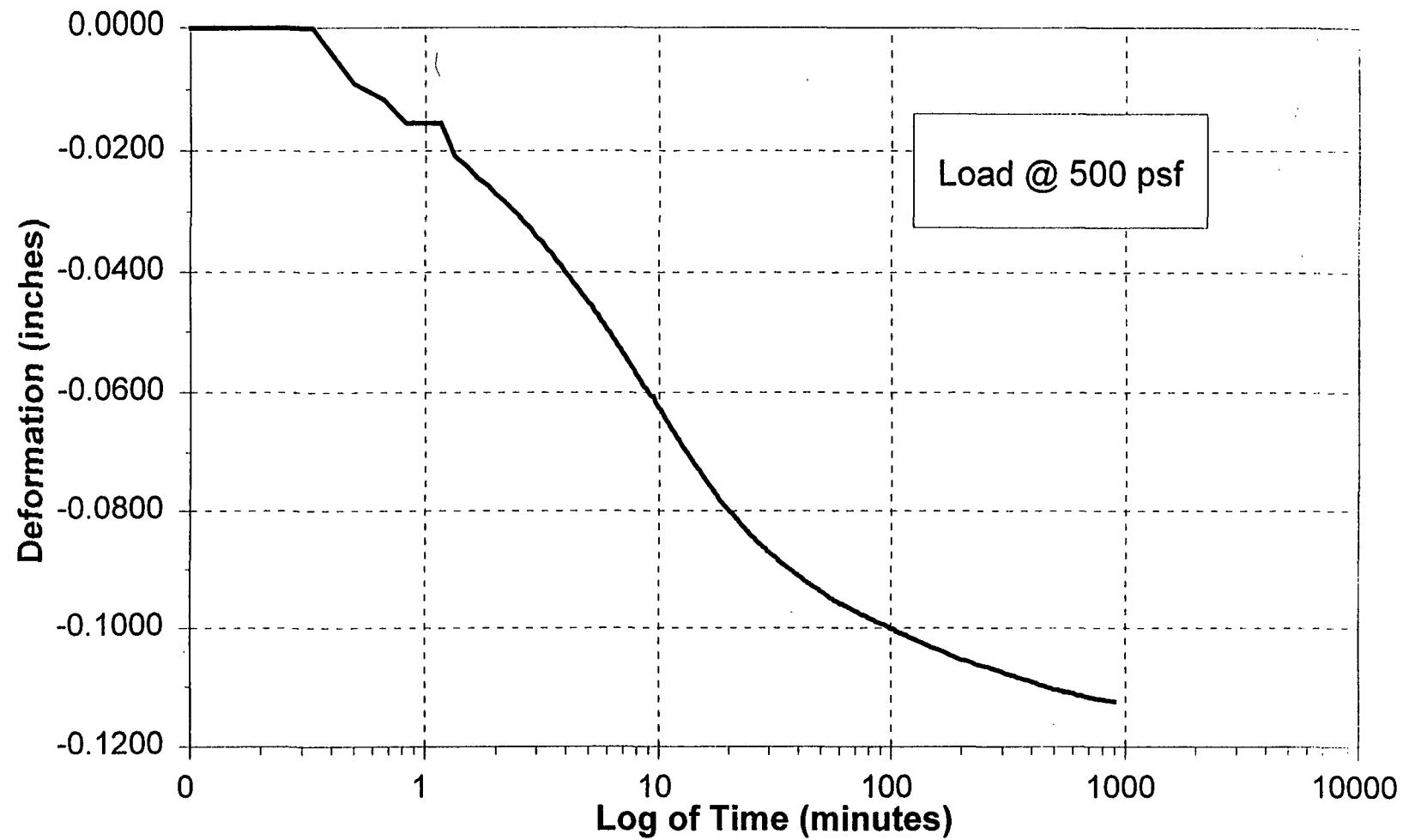
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



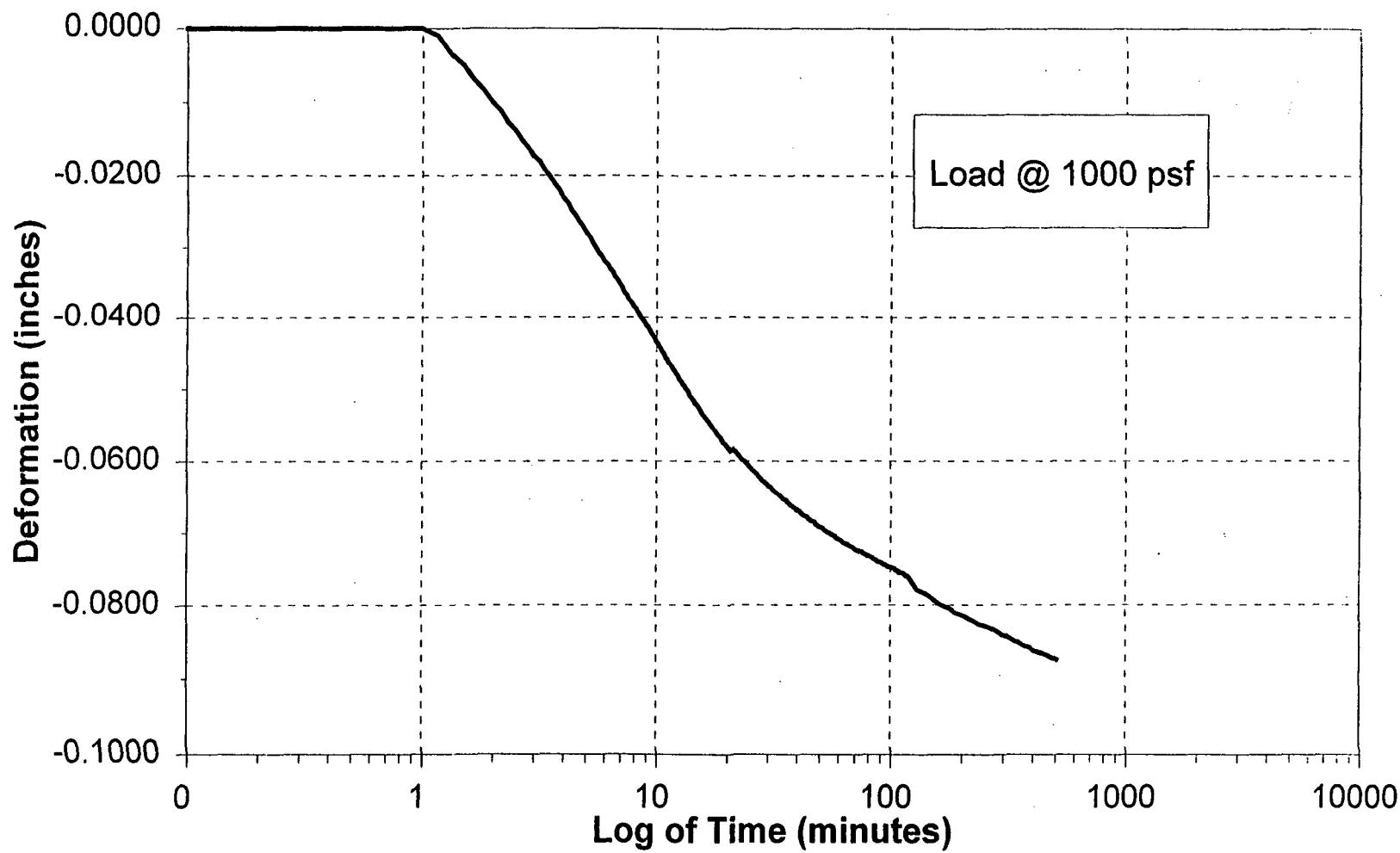
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



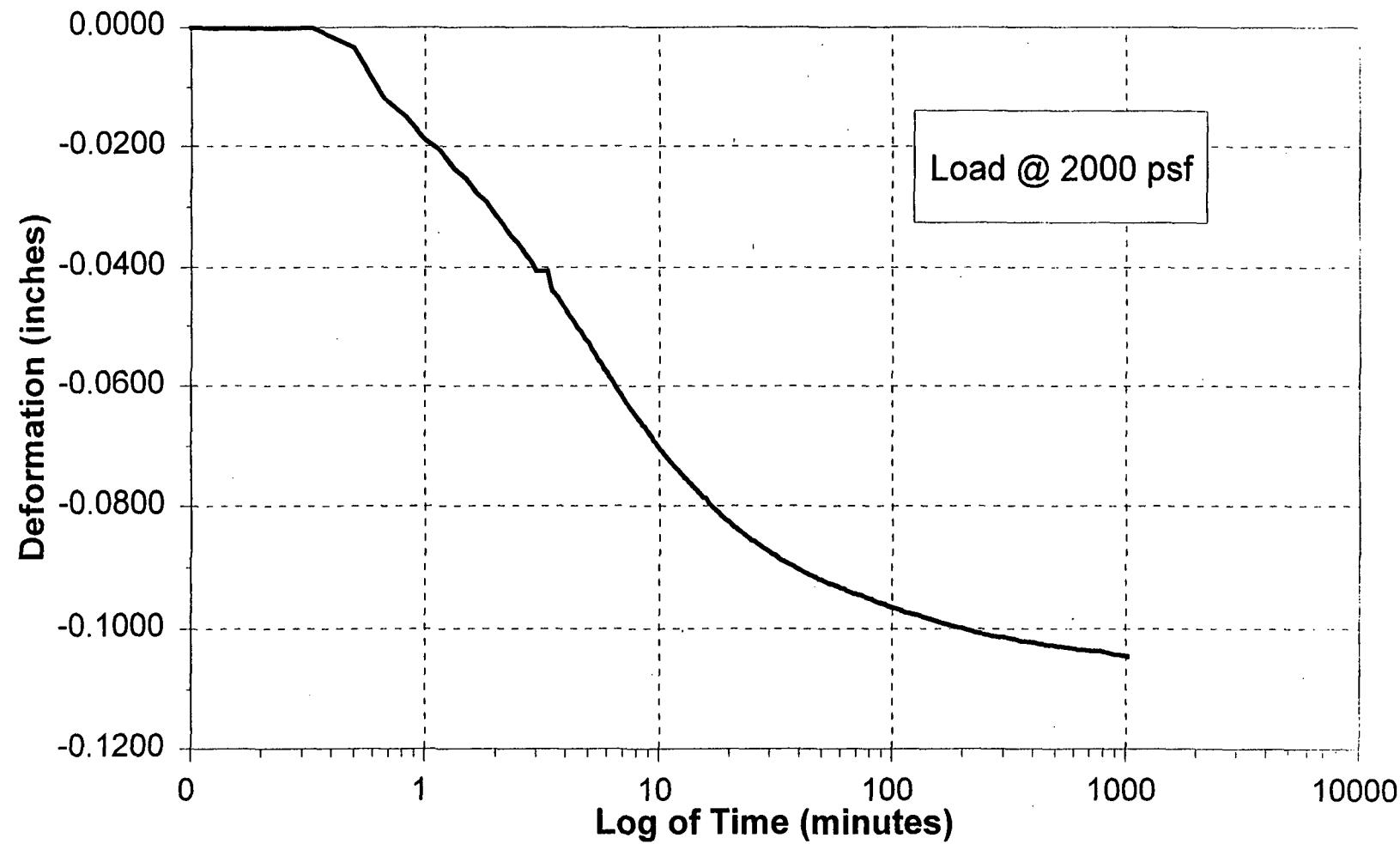
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



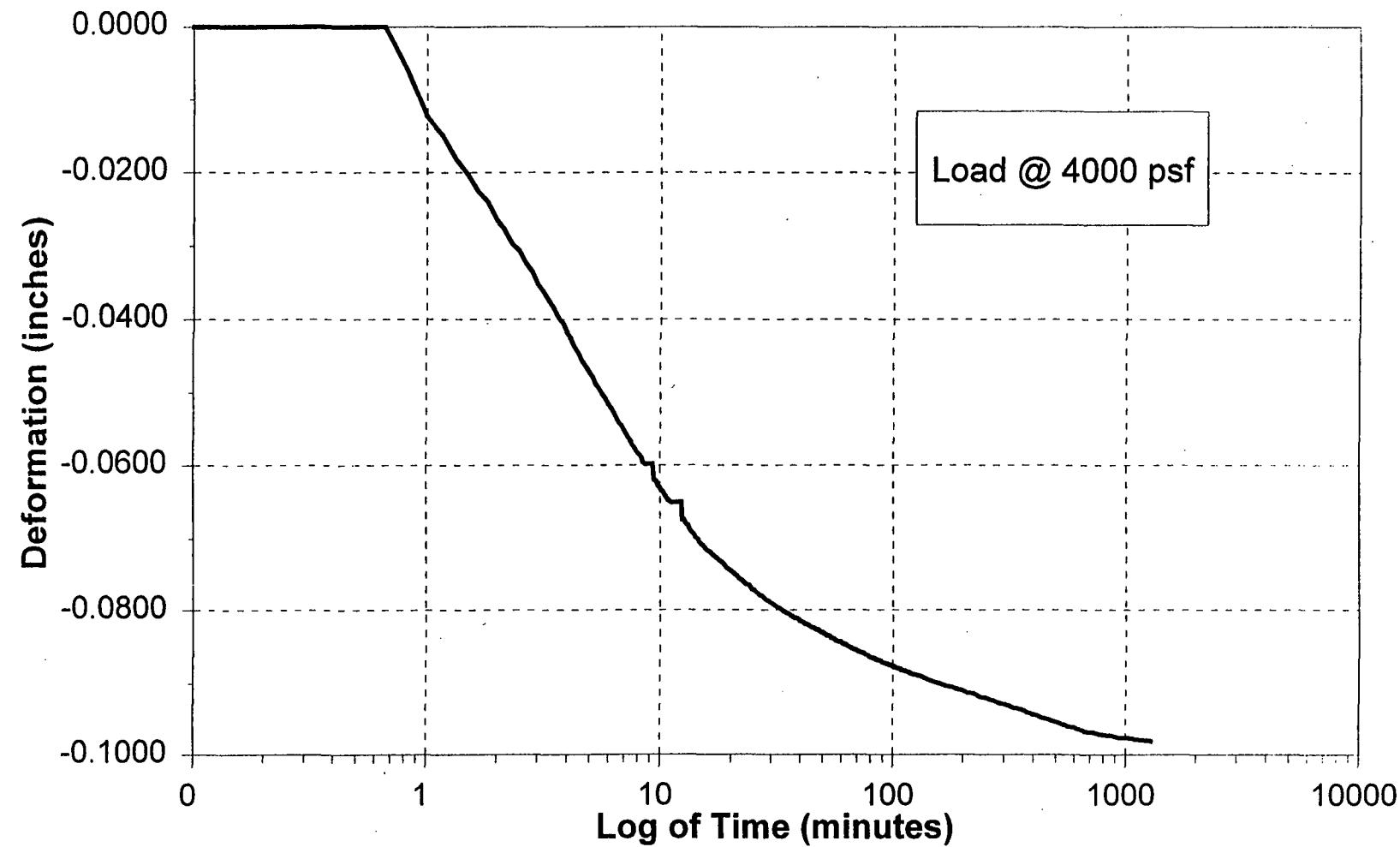
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet



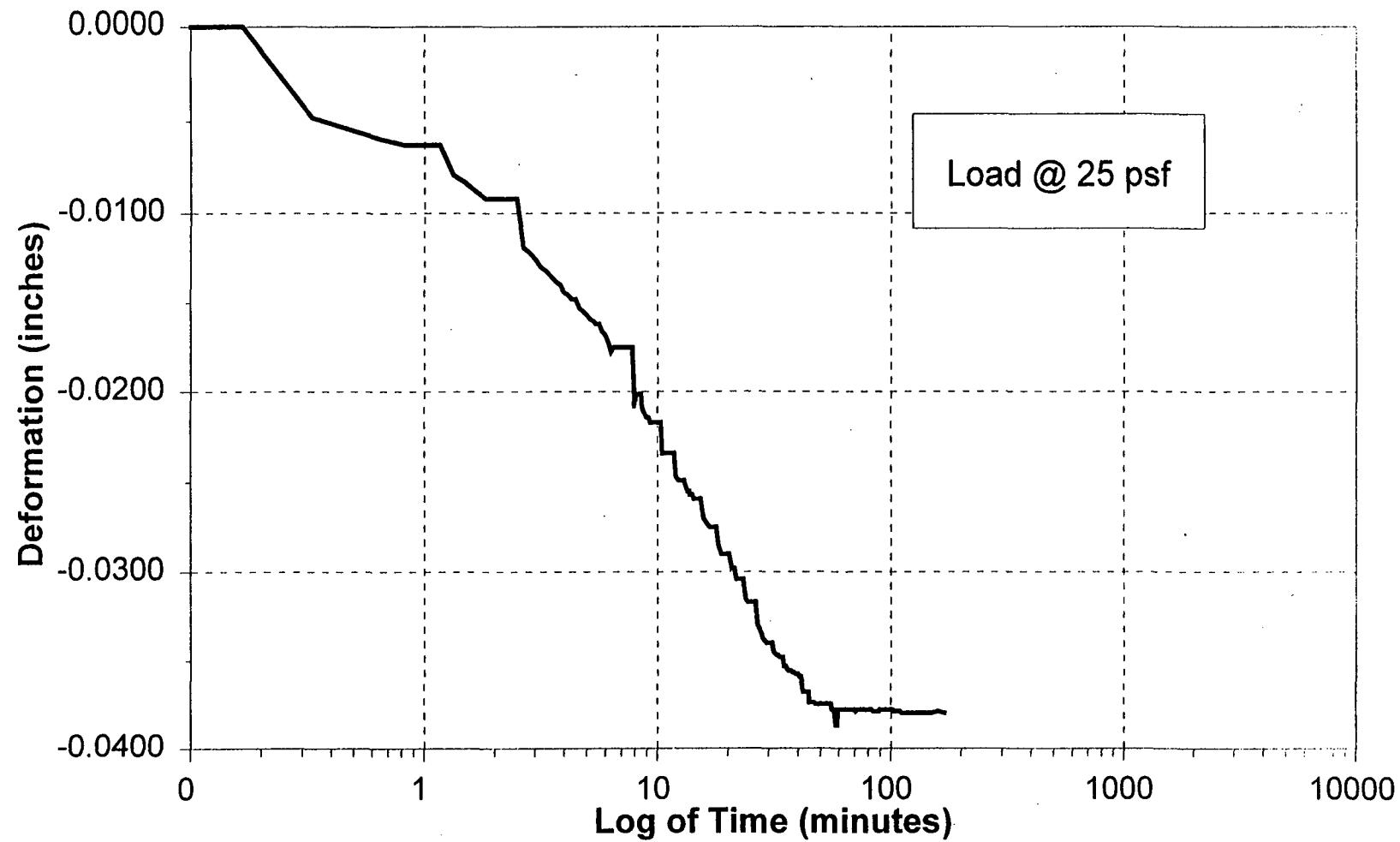
Time Rate of Consolidation

Sample: Pond 8E, BH-5 @ 4.5 feet

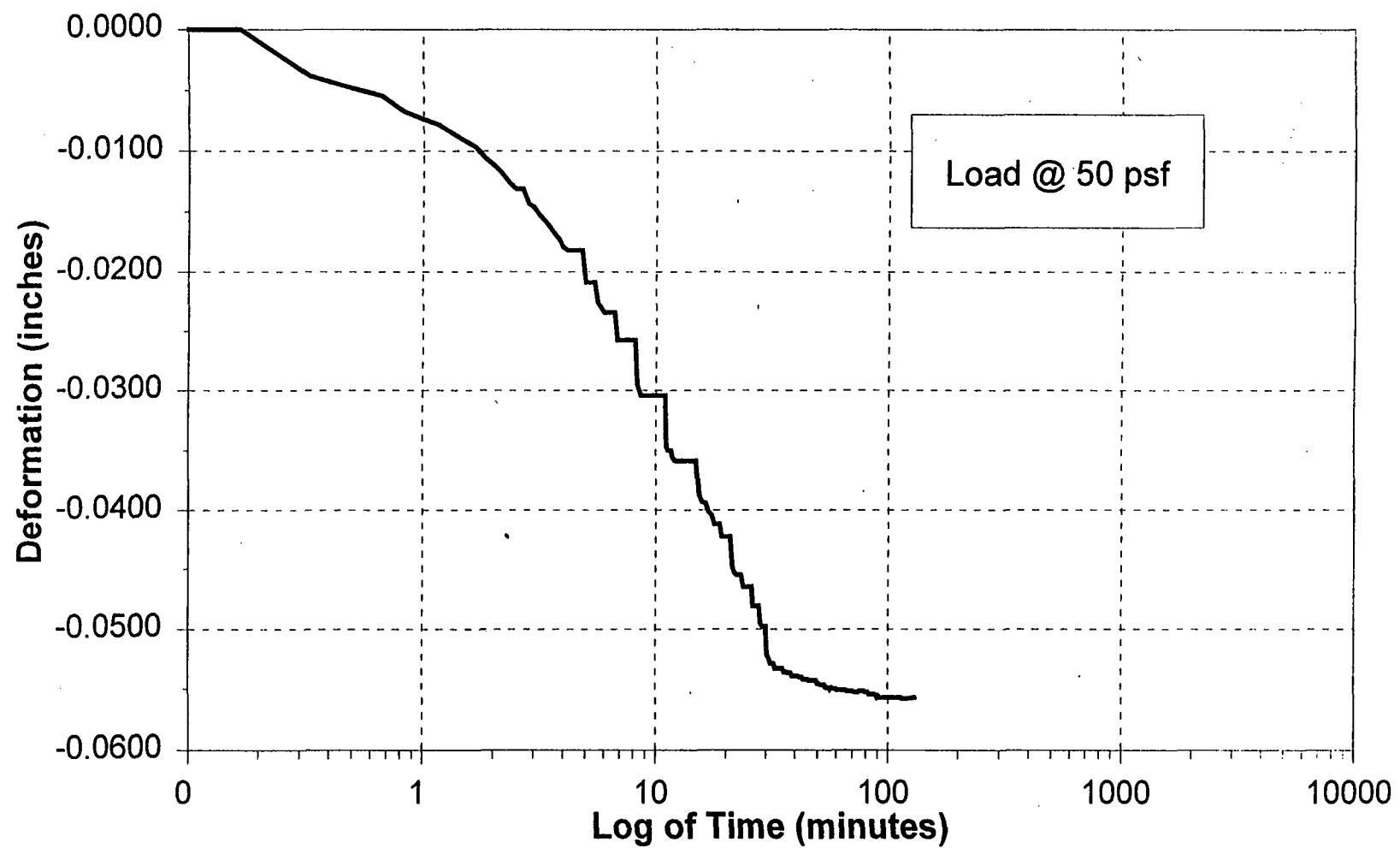


Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet

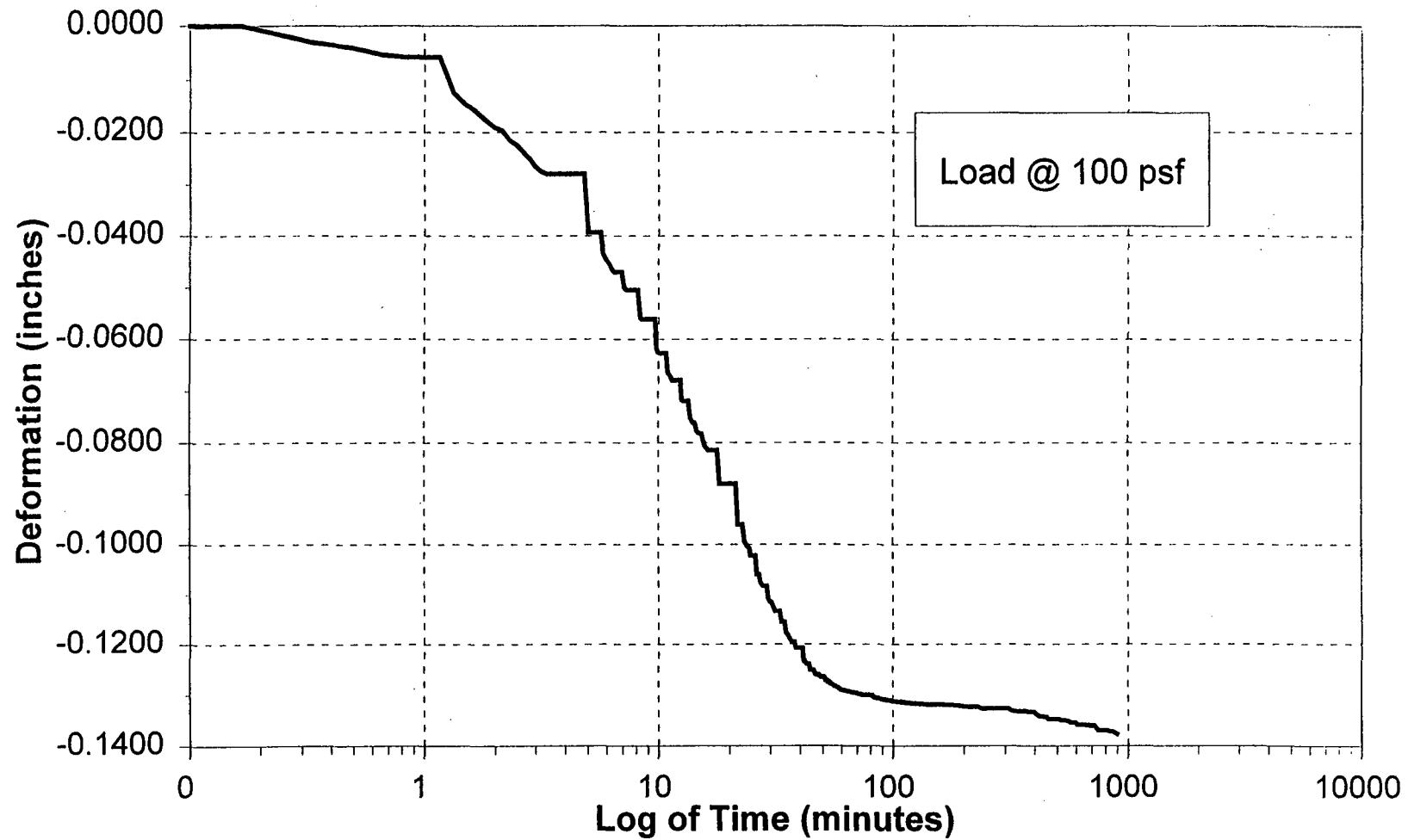


Time Rate of Consolidation
Sample: Pond 11S, BH-1 @ 7.5 feet



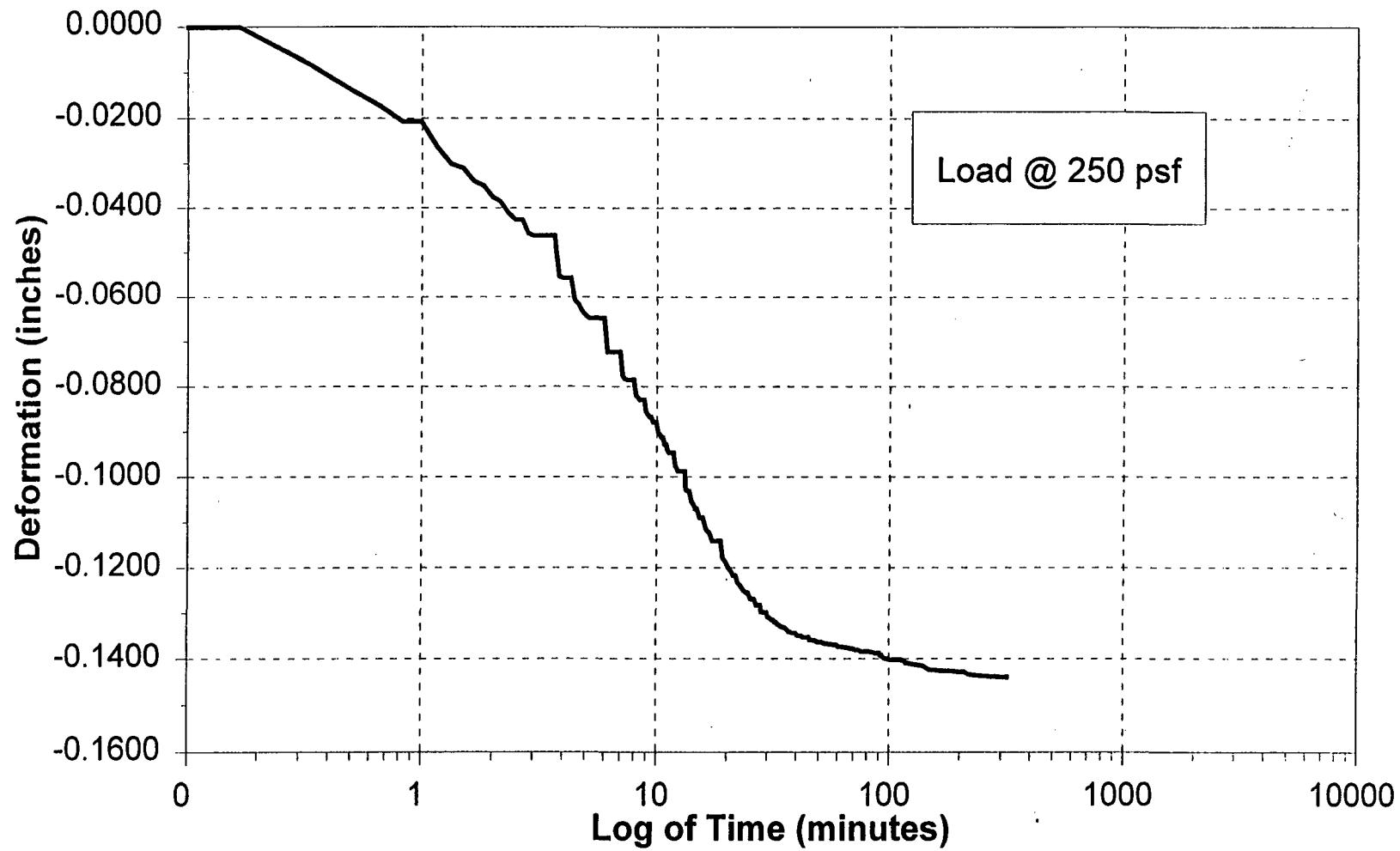
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



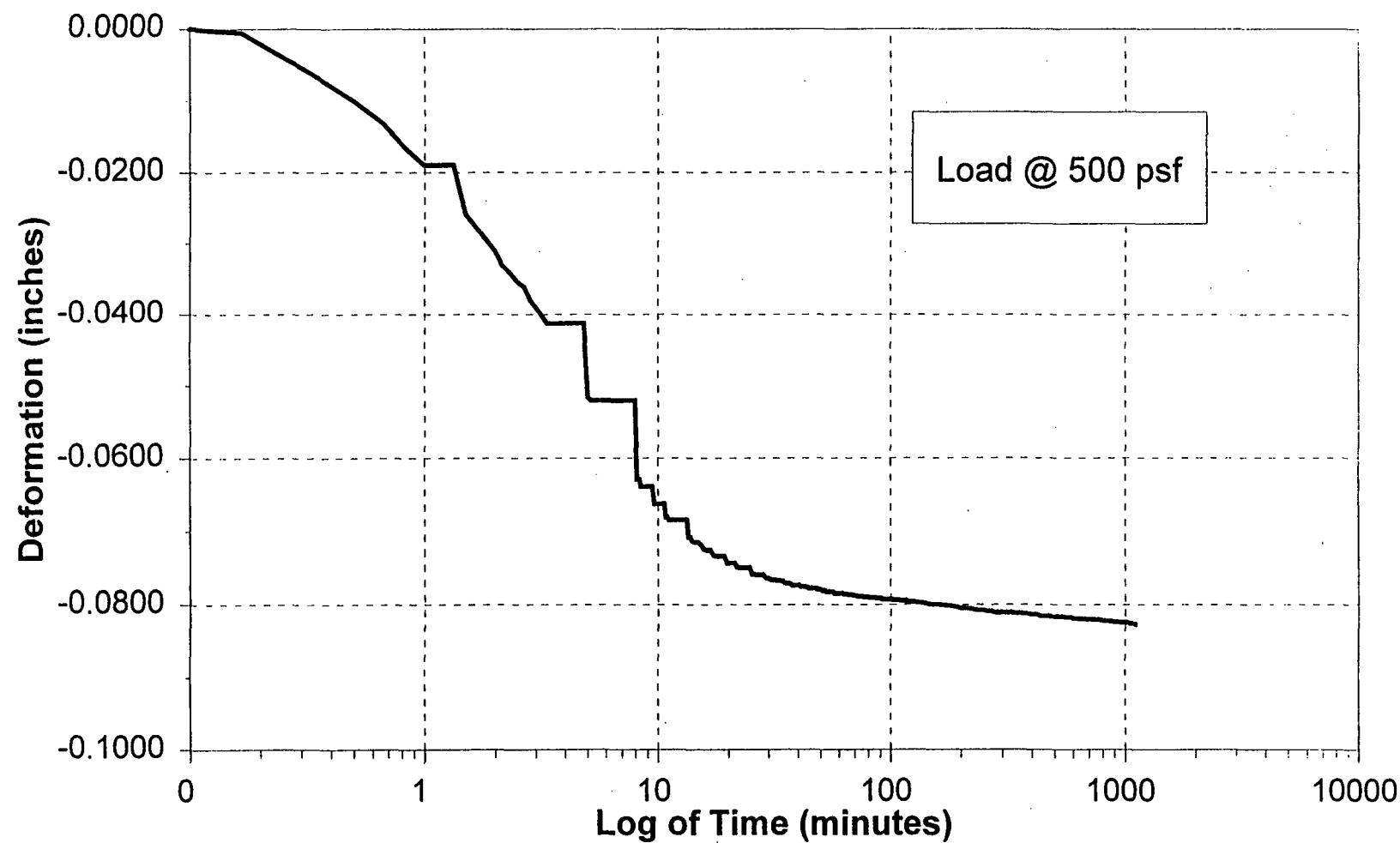
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



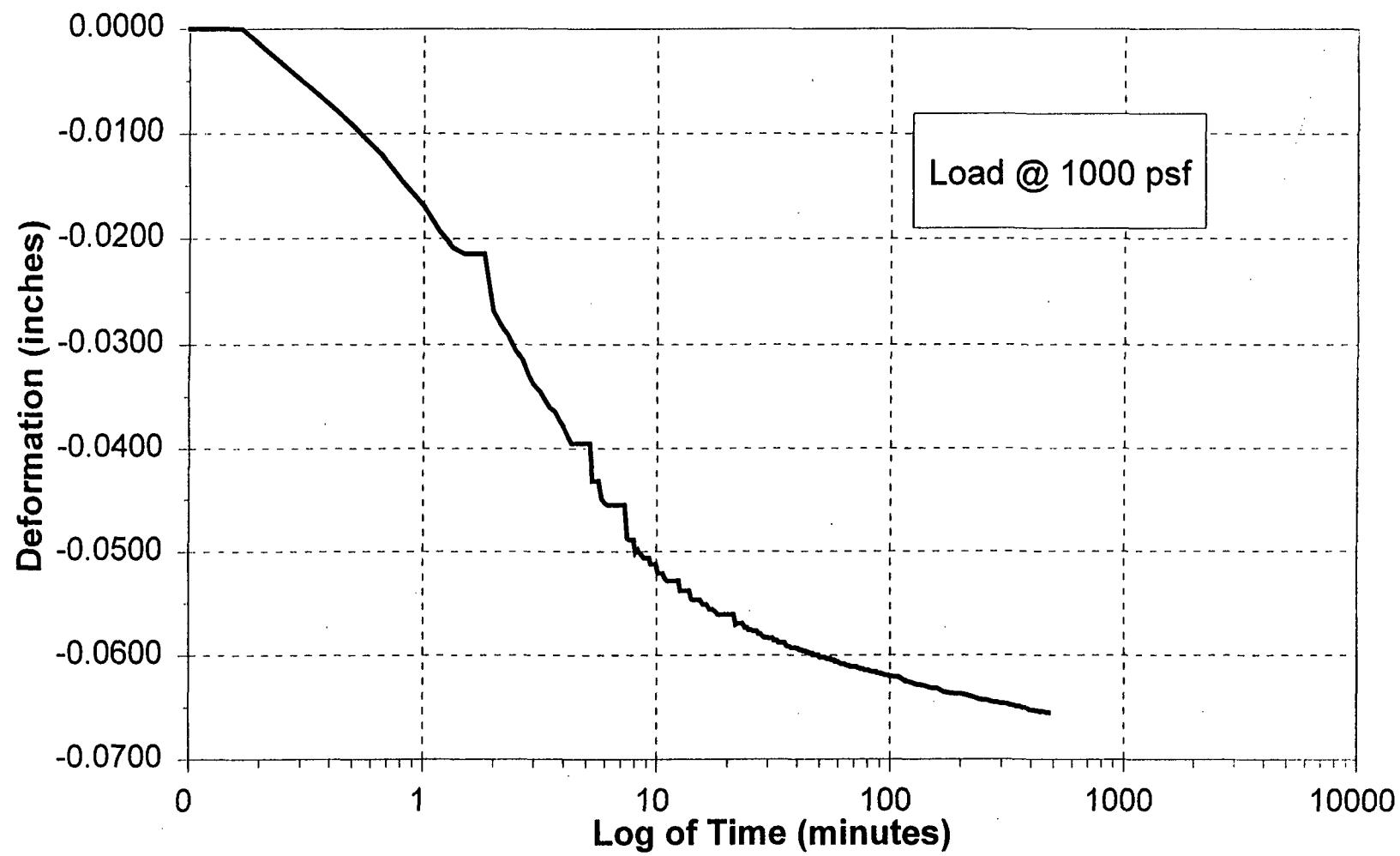
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



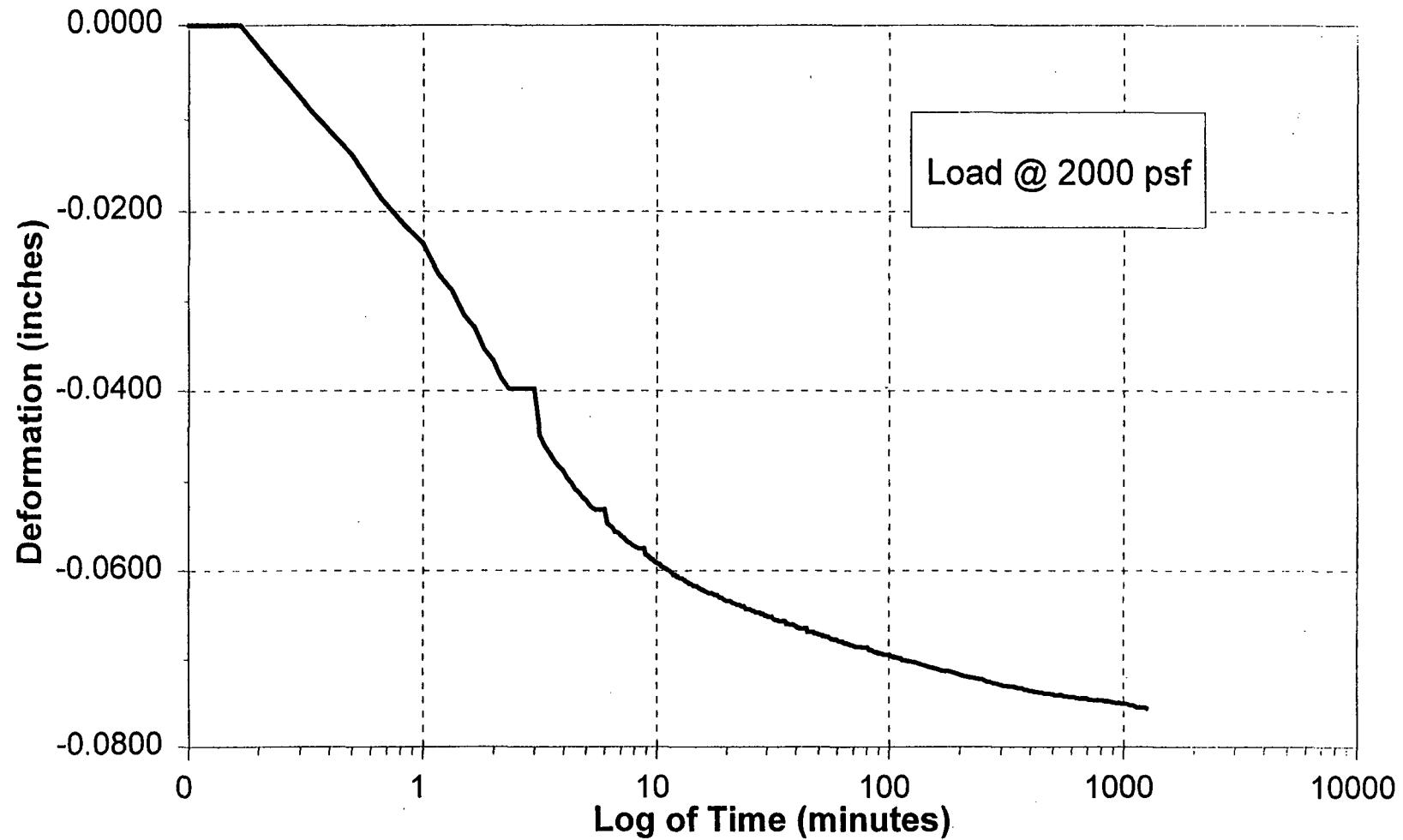
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



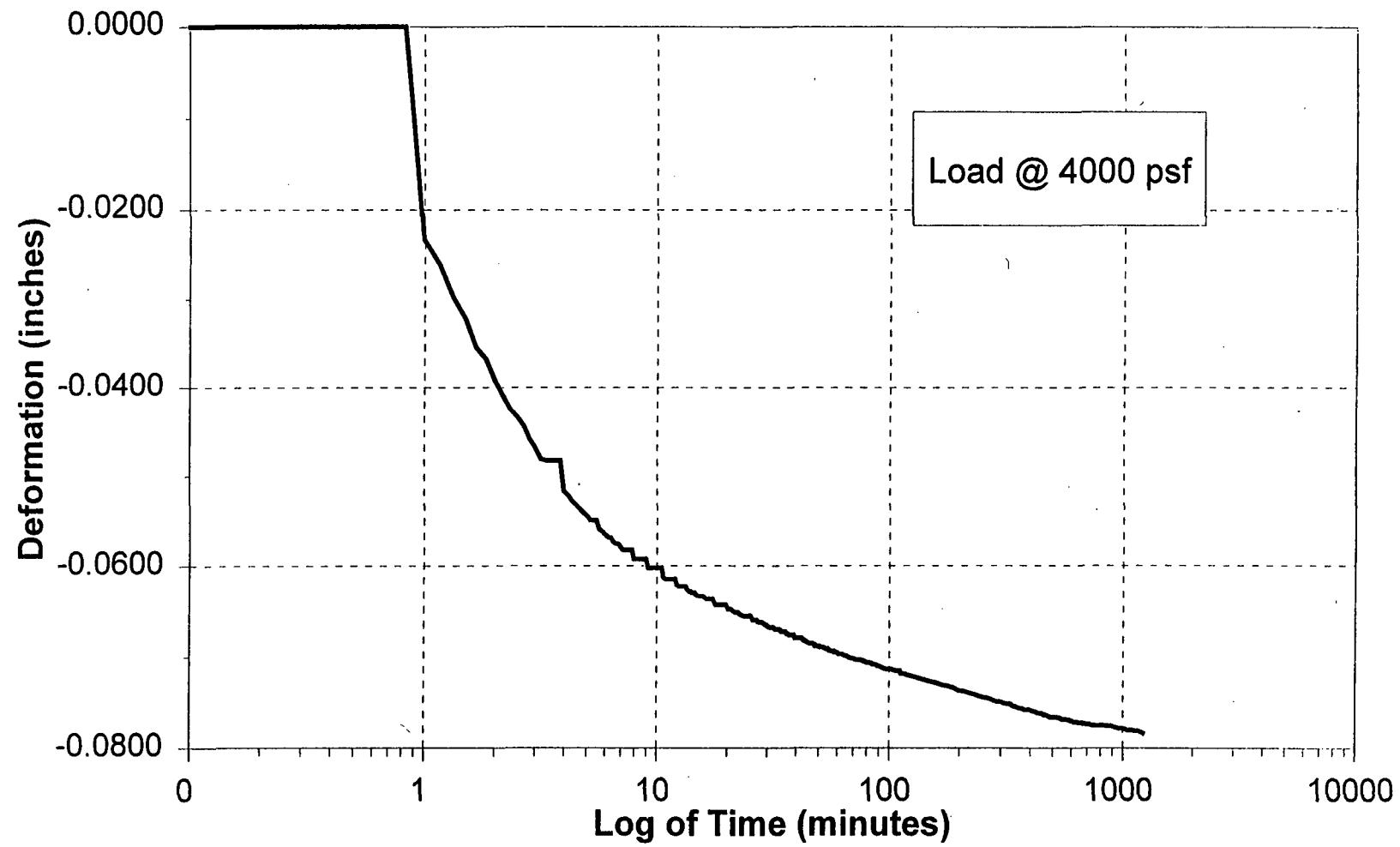
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



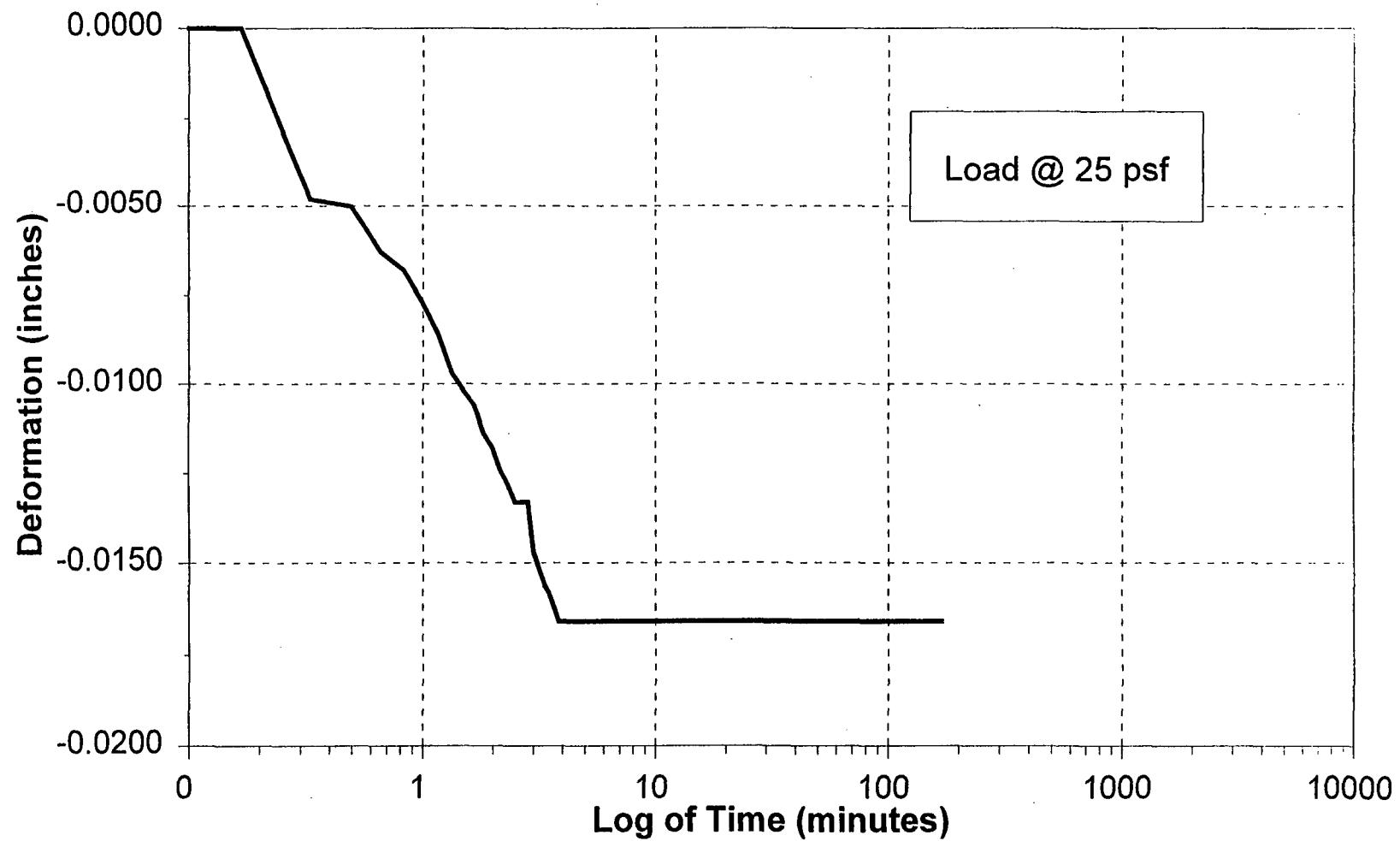
Time Rate of Consolidation

Sample: Pond 11S, BH-1 @ 7.5 feet



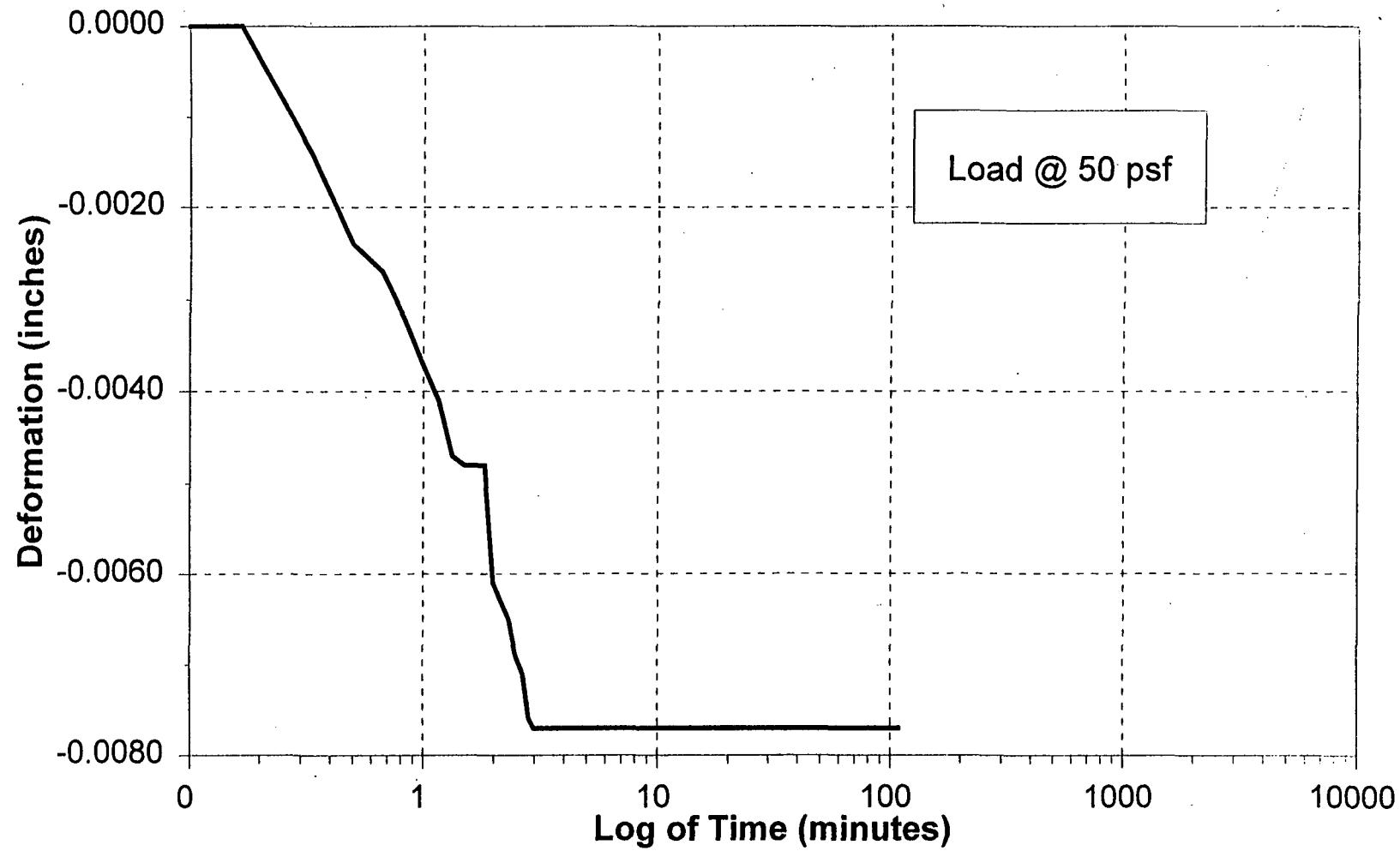
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



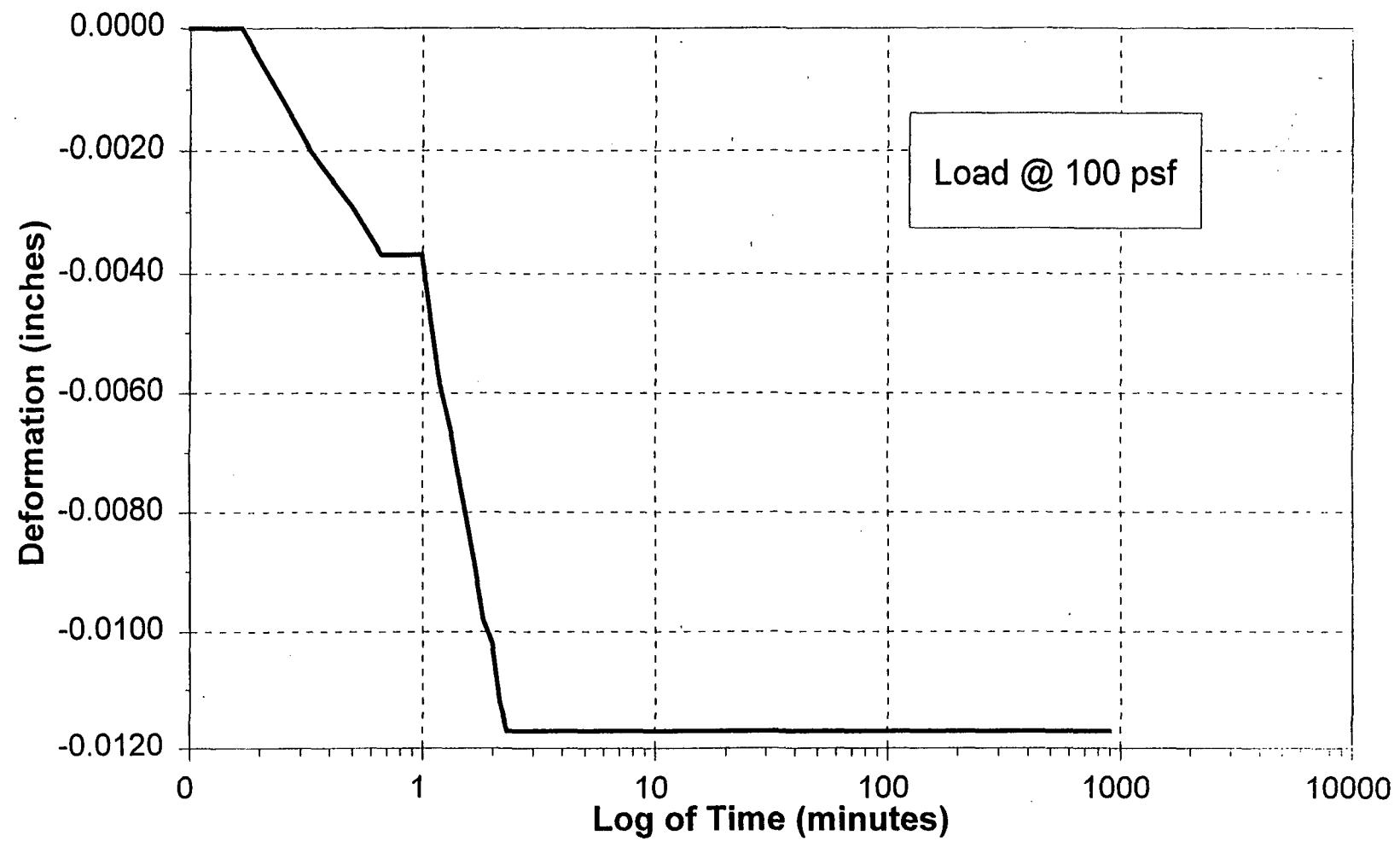
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



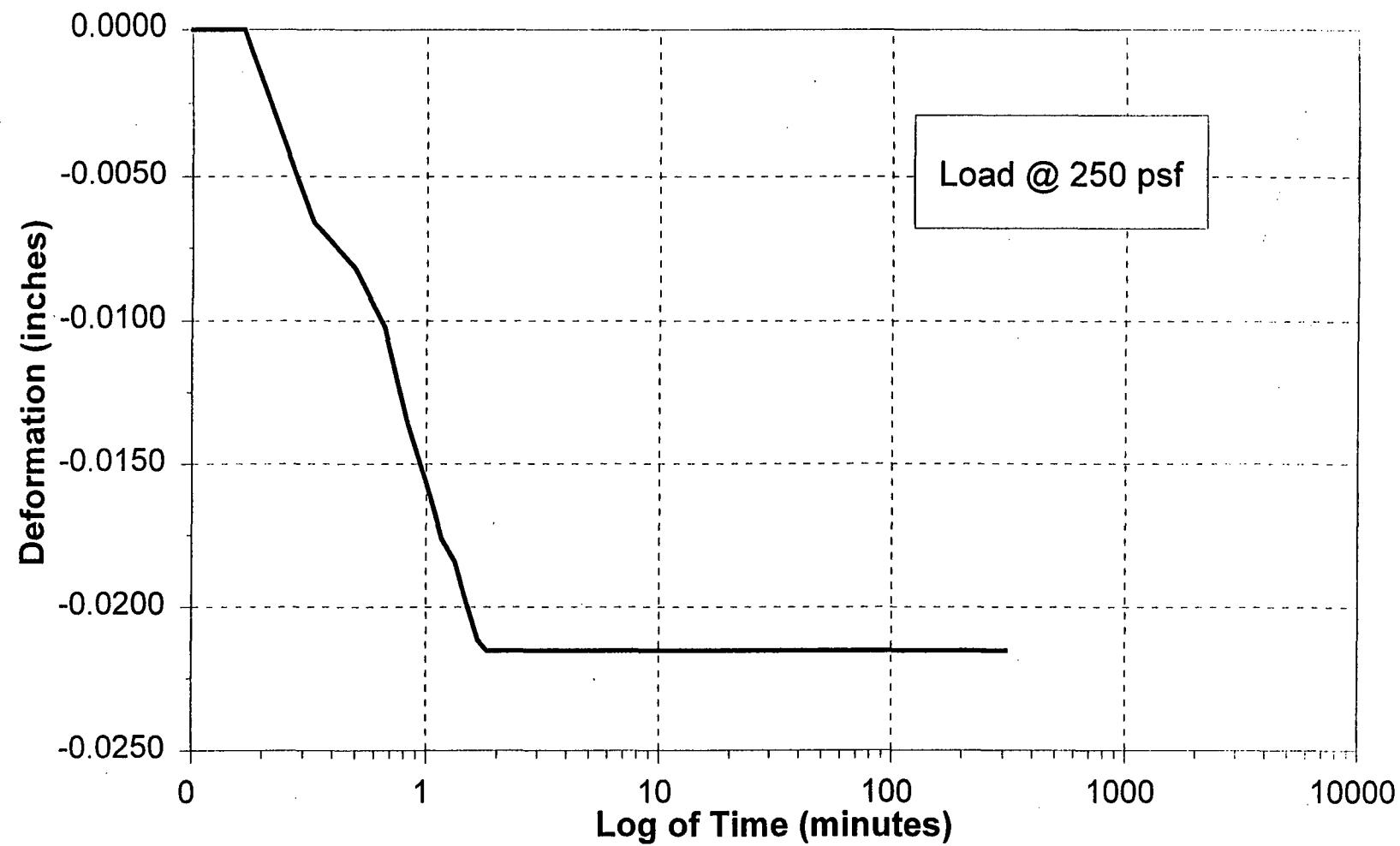
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



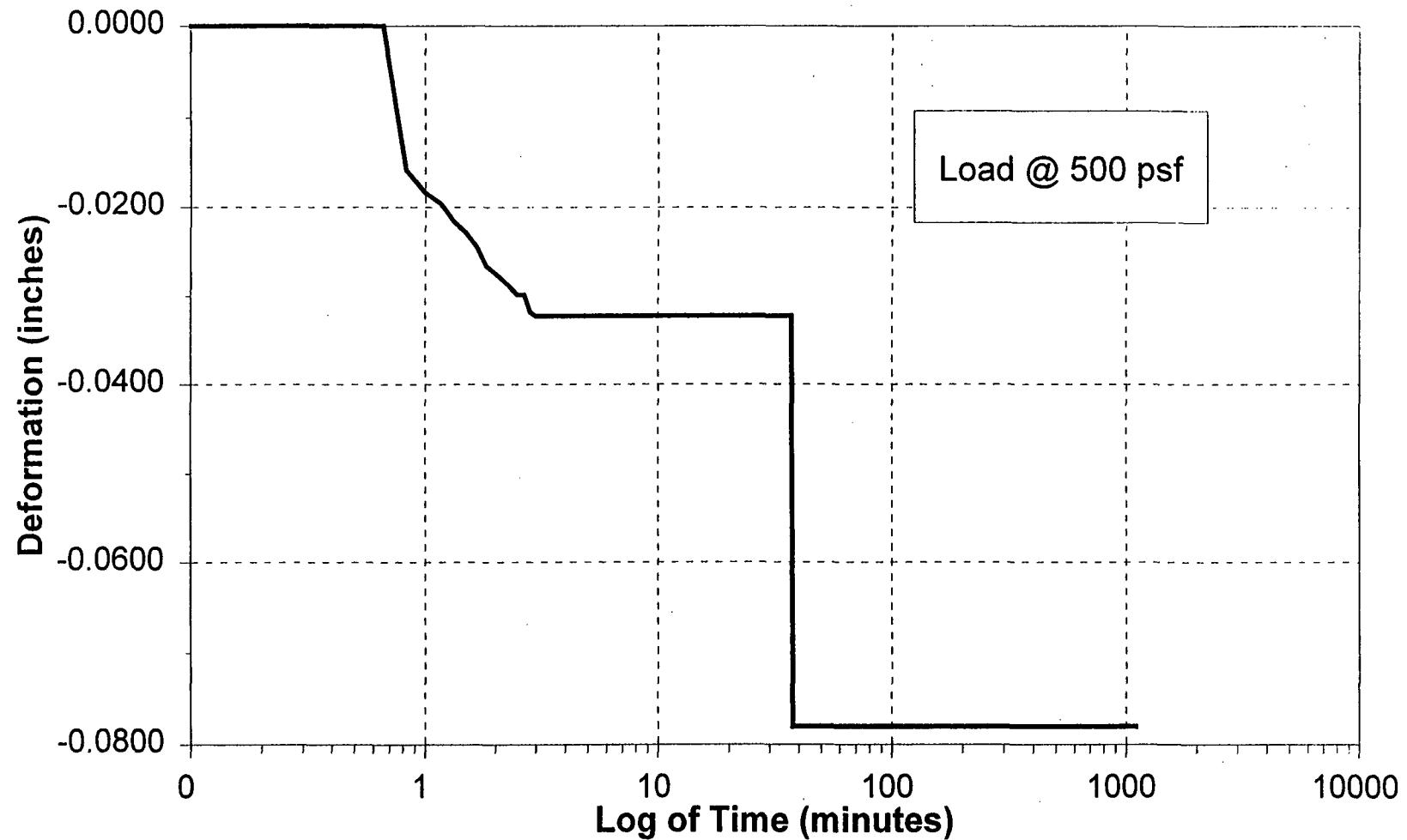
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



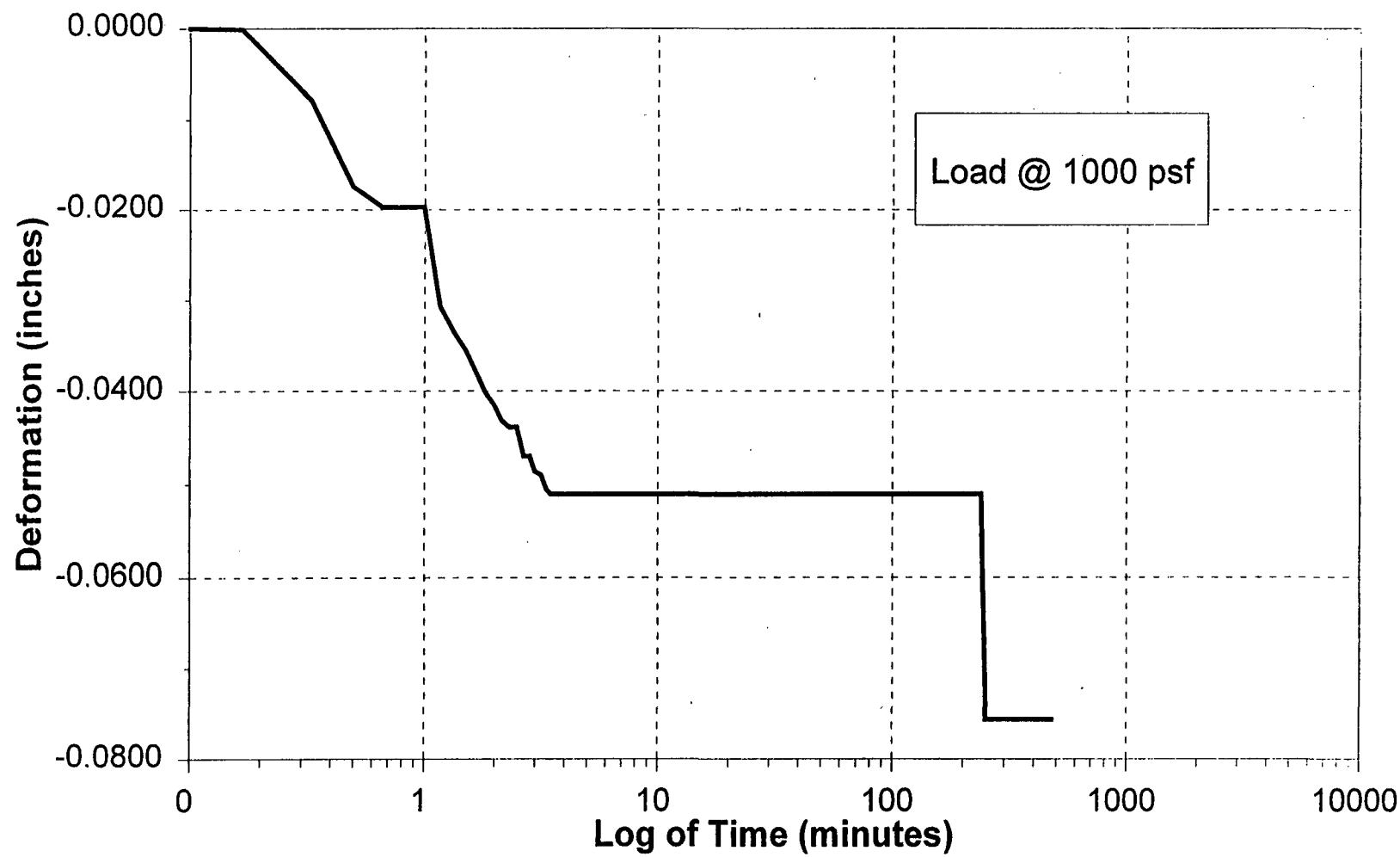
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



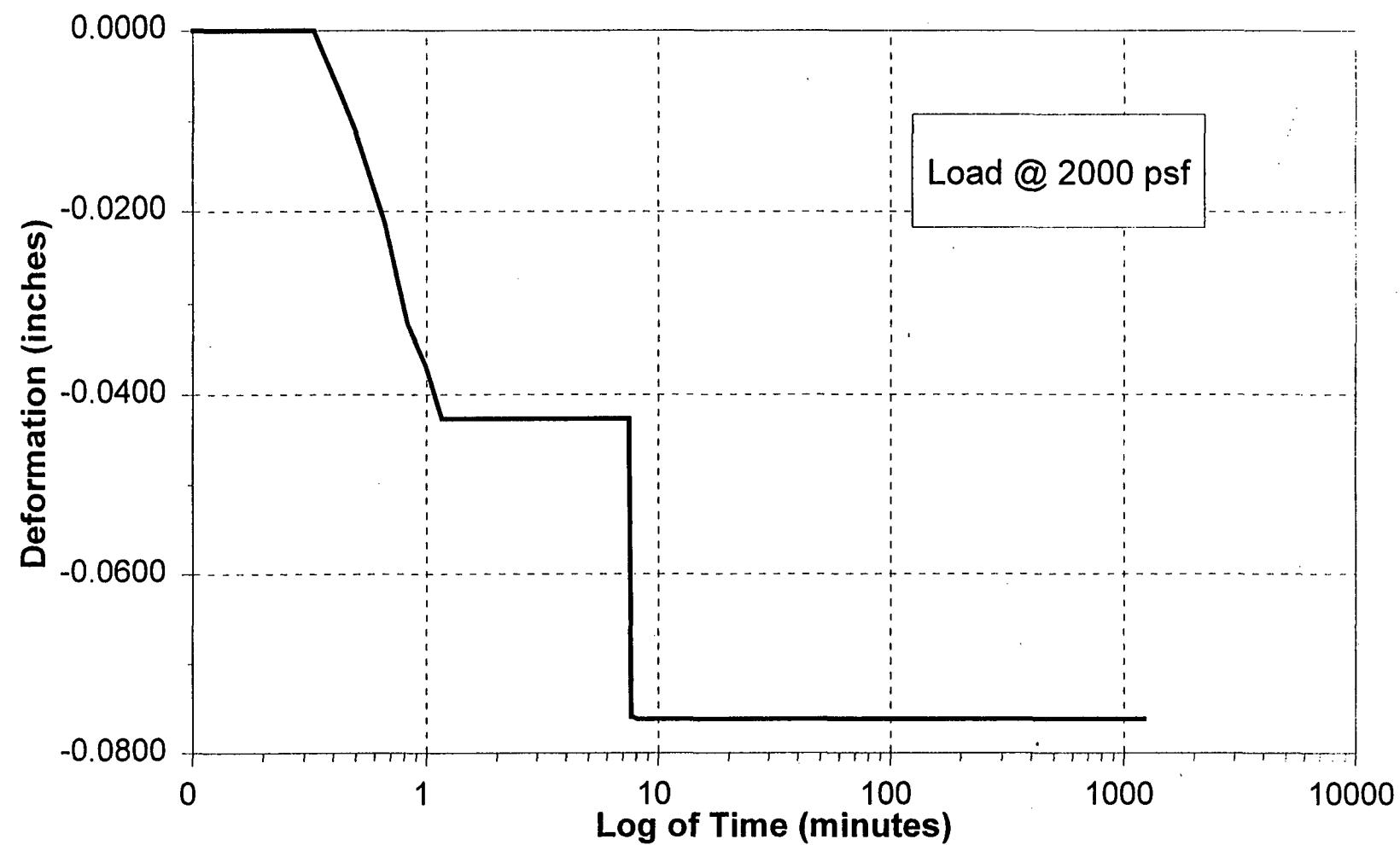
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



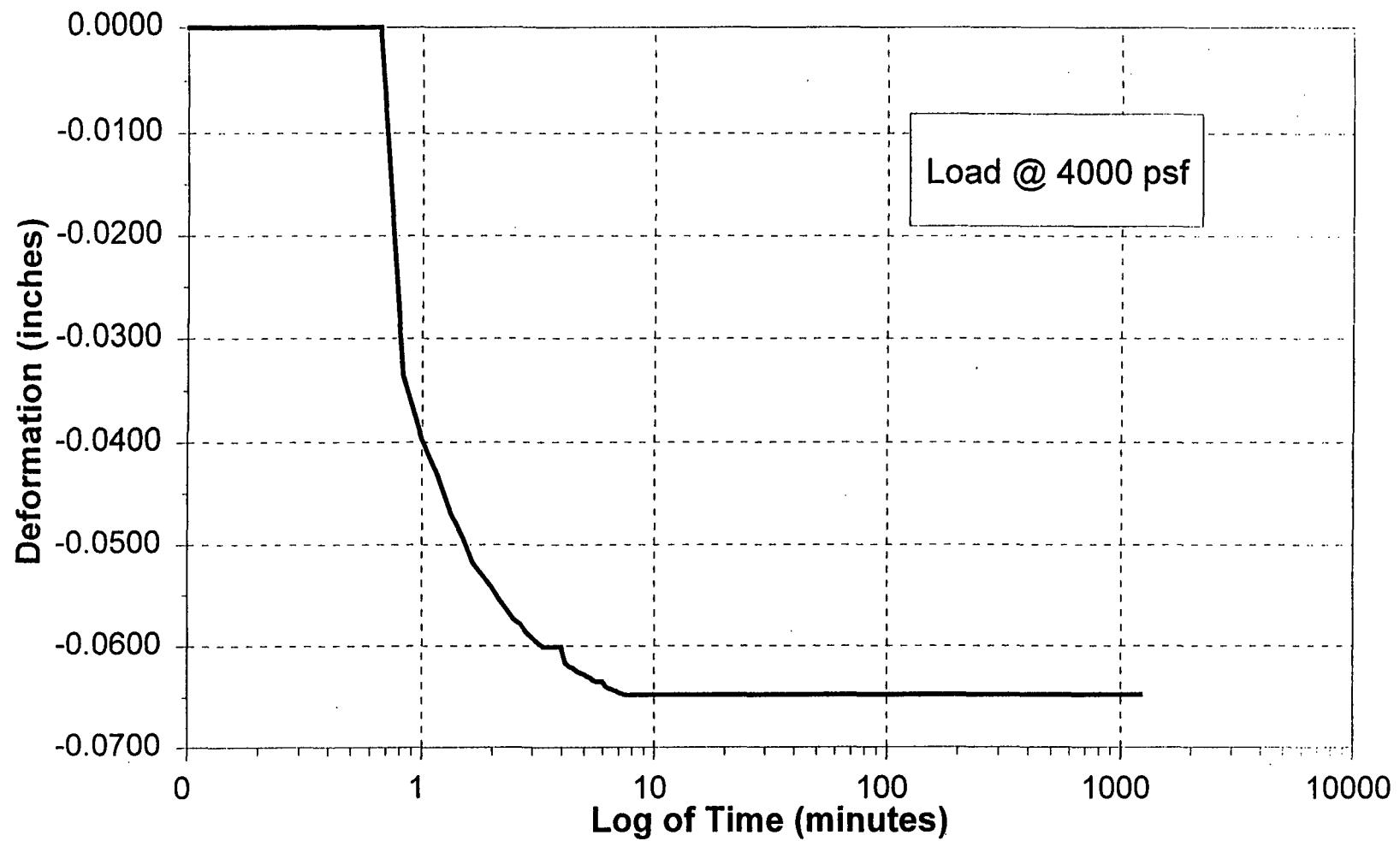
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



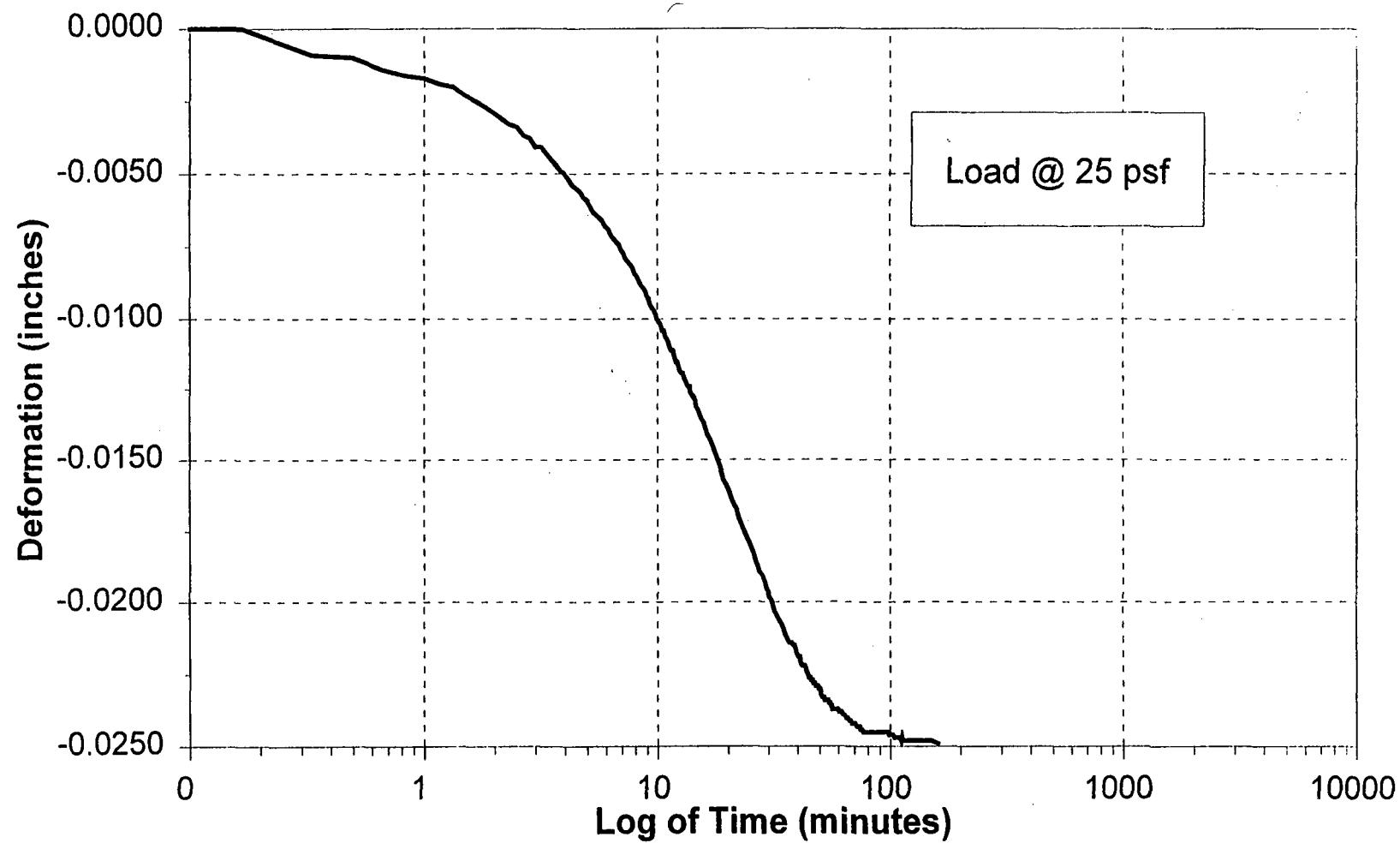
Time Rate of Consolidation

Sample: Pond 12S, BH-1 @ 13.5 feet



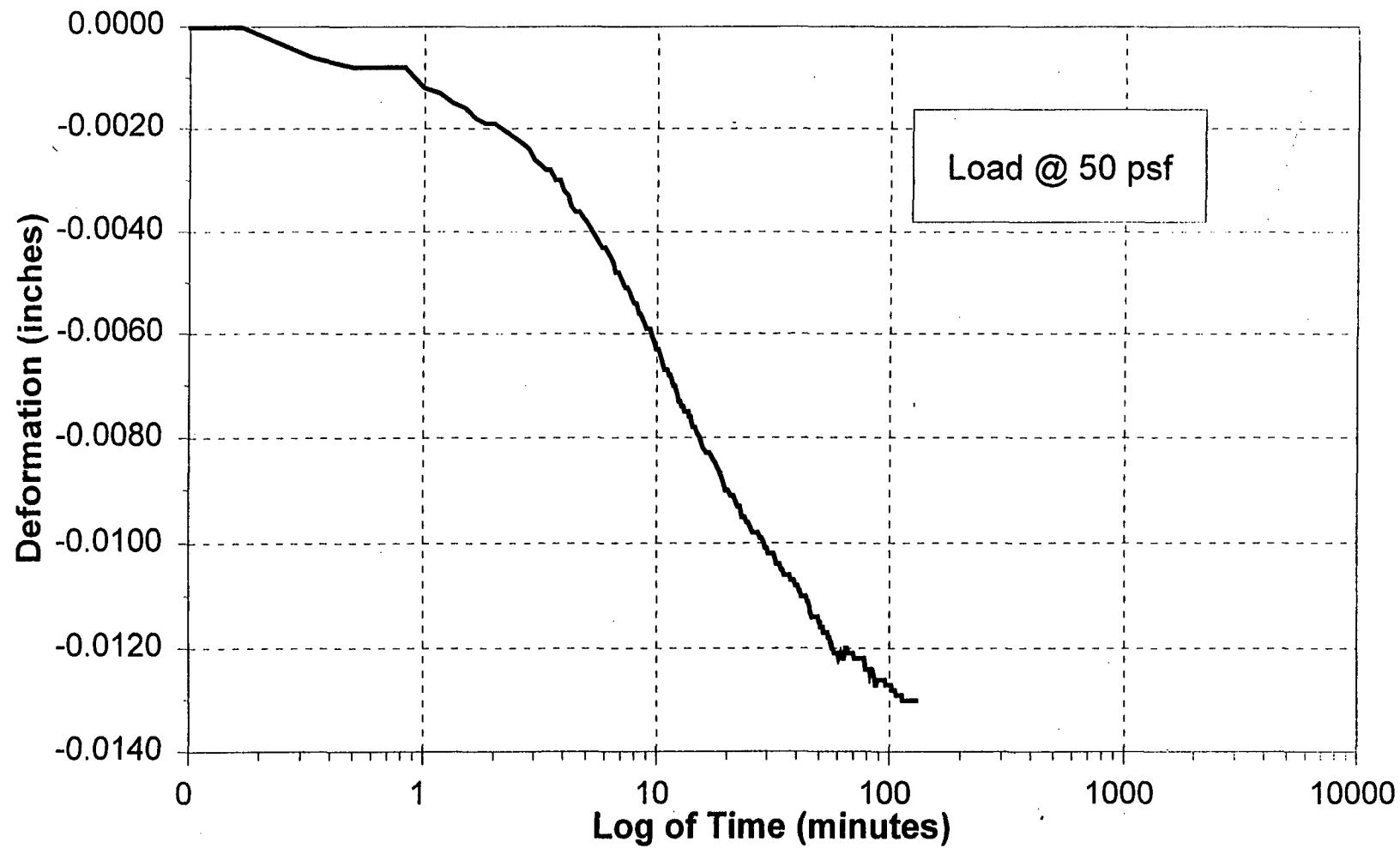
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



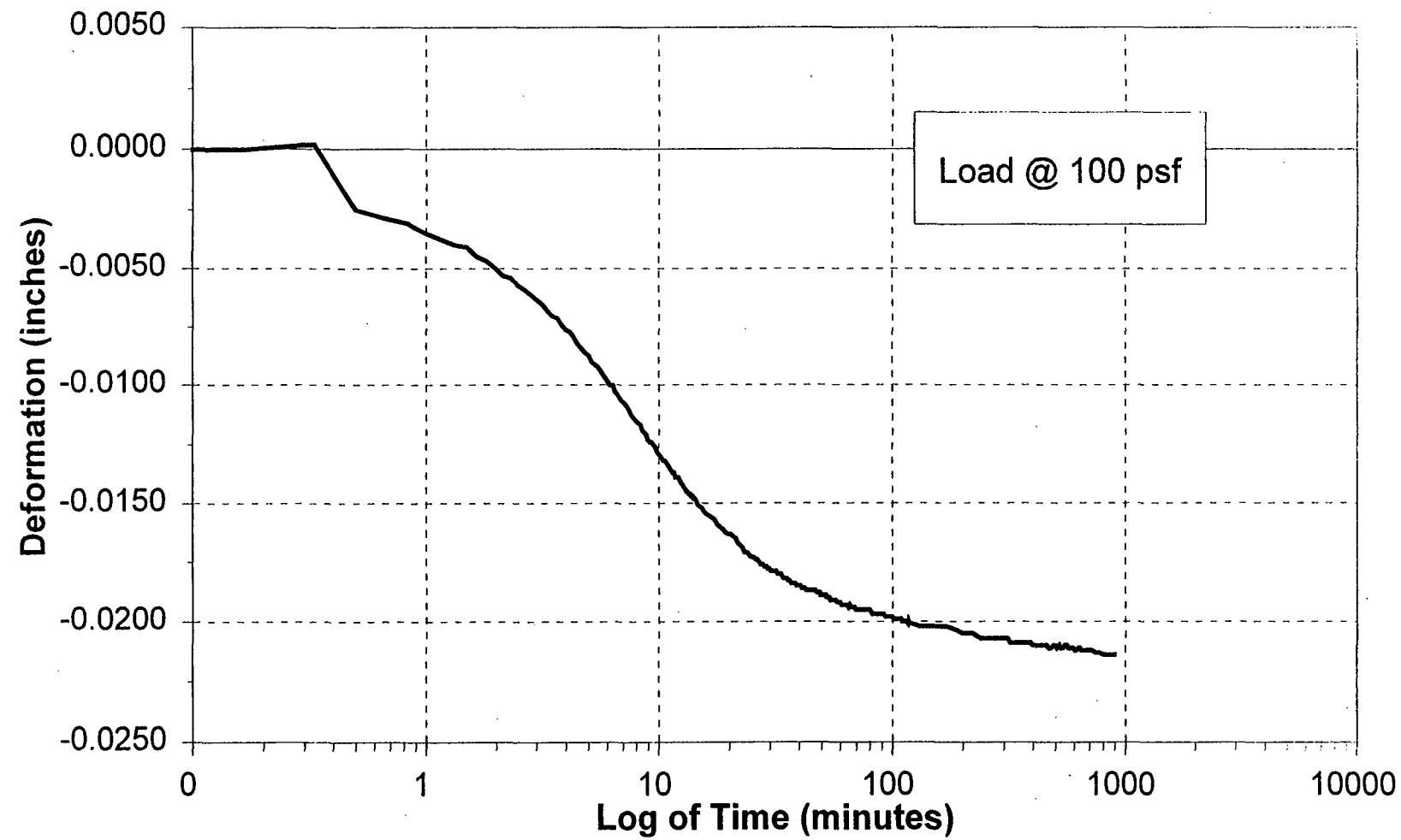
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



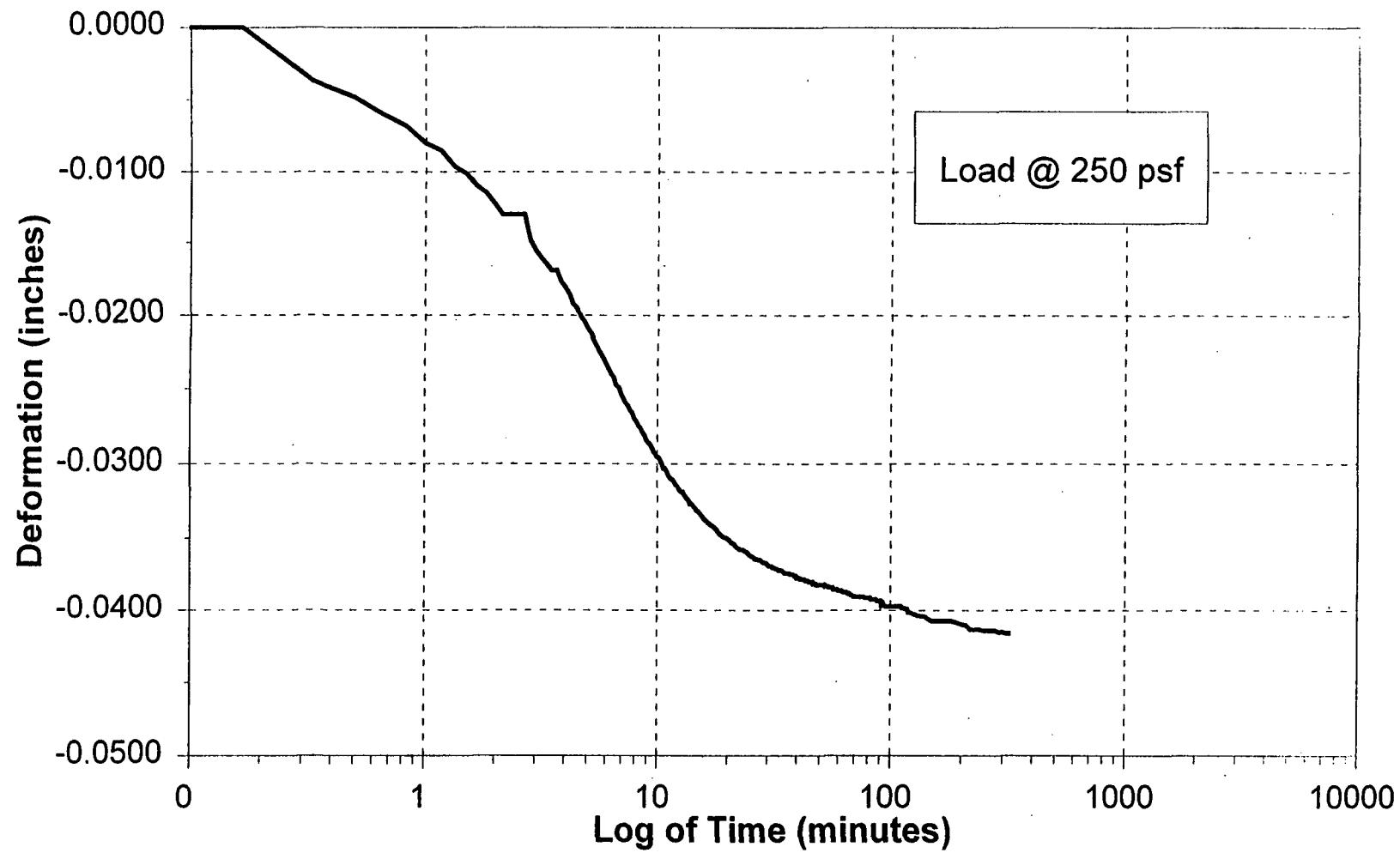
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet

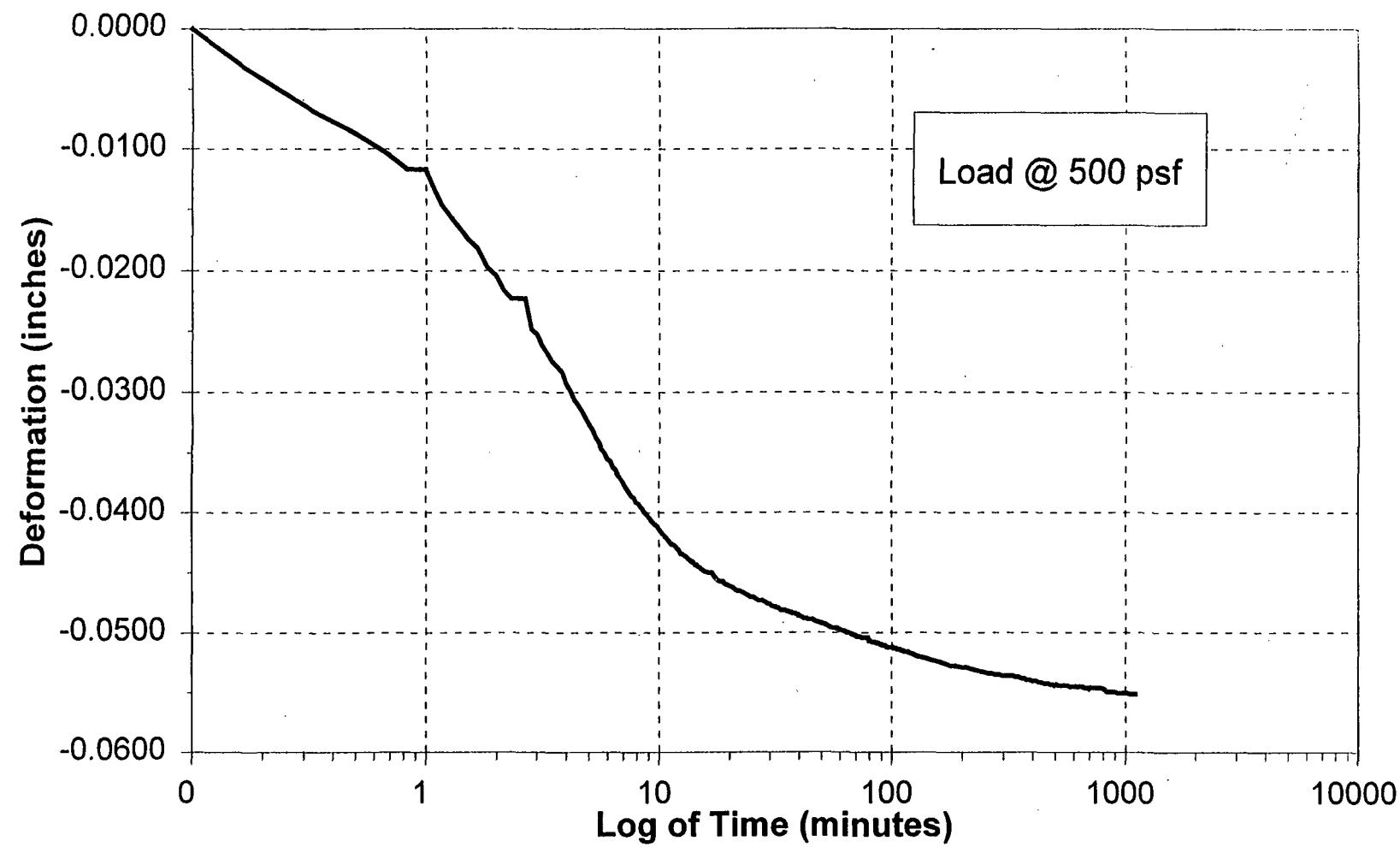


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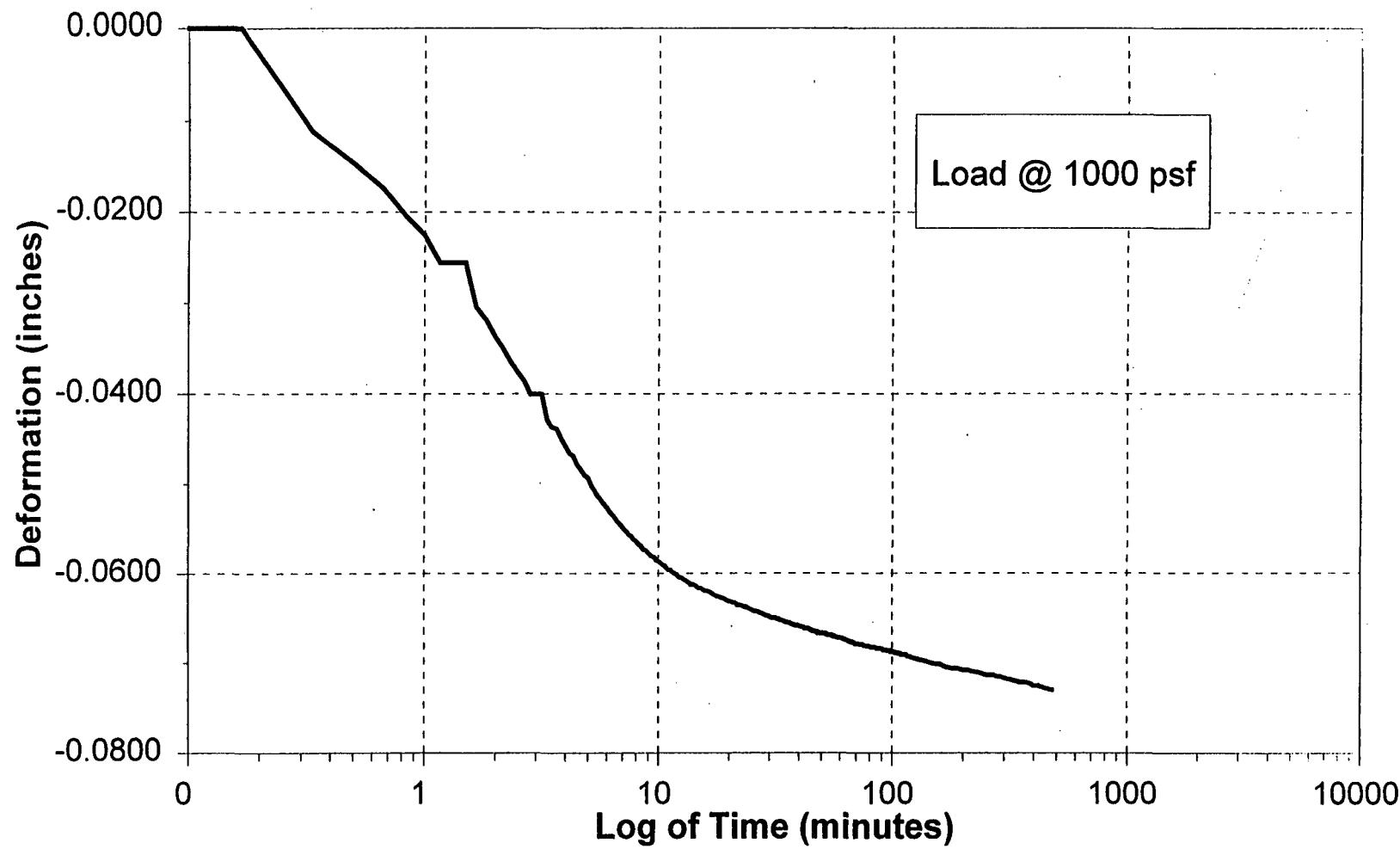
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



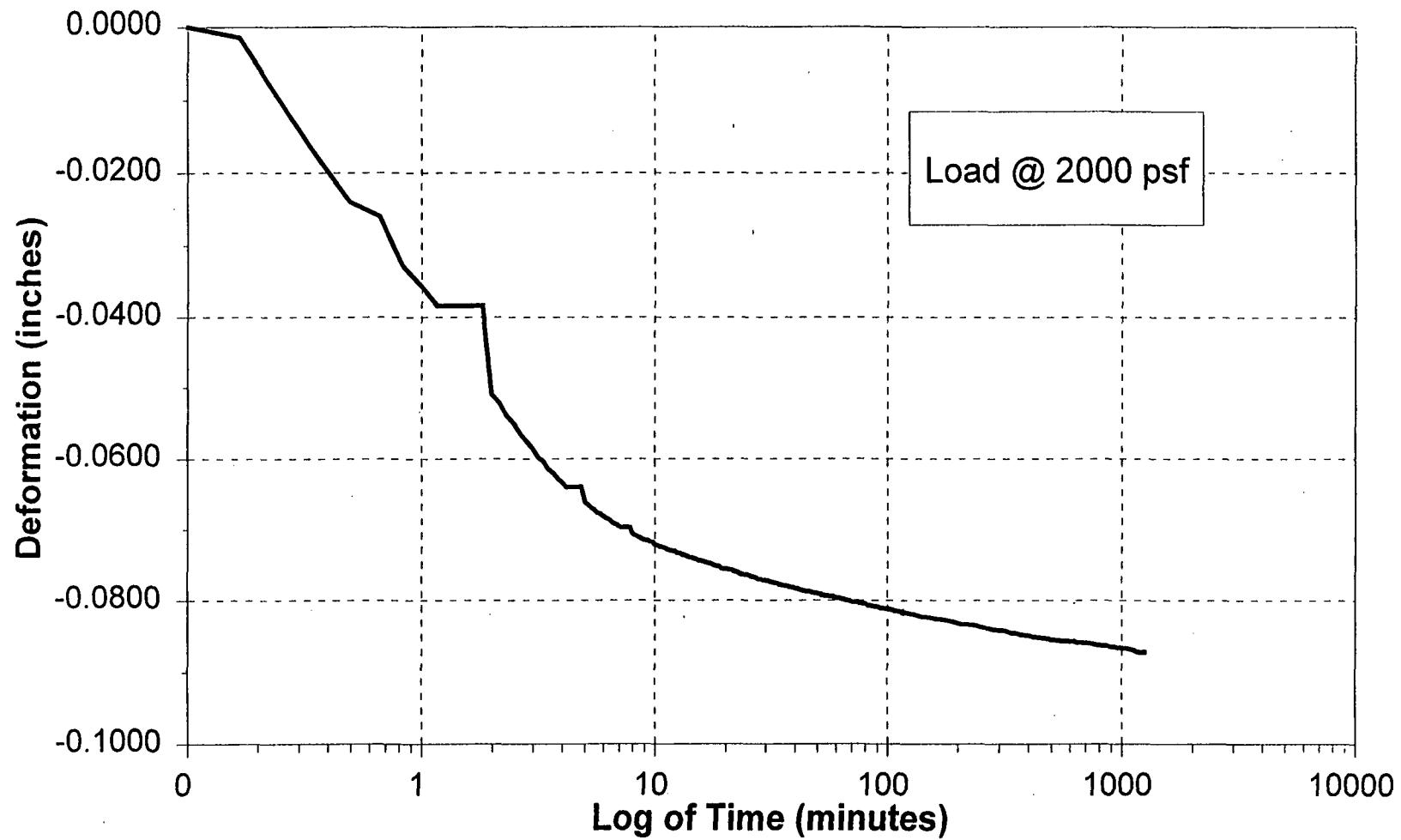
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet



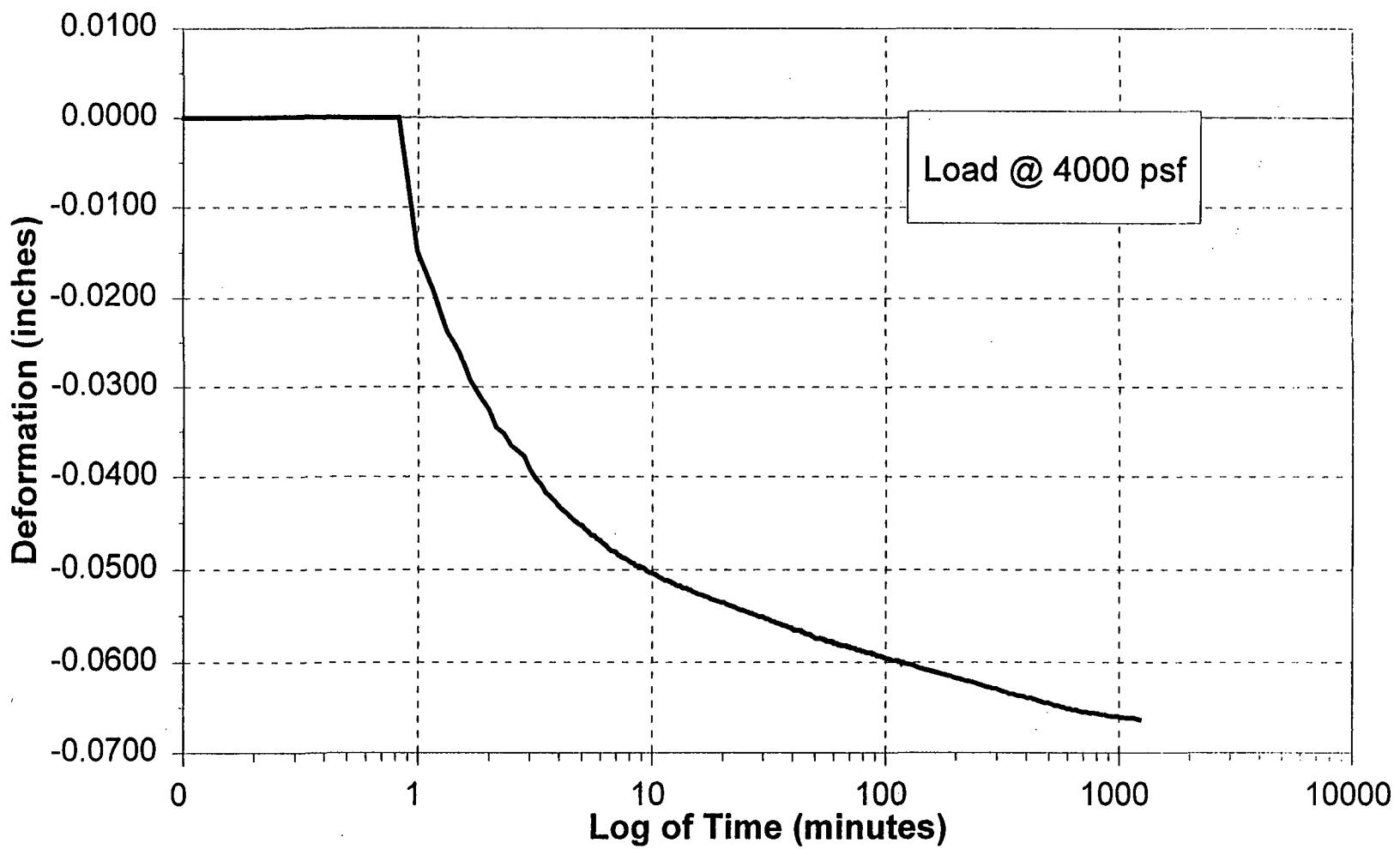
Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet

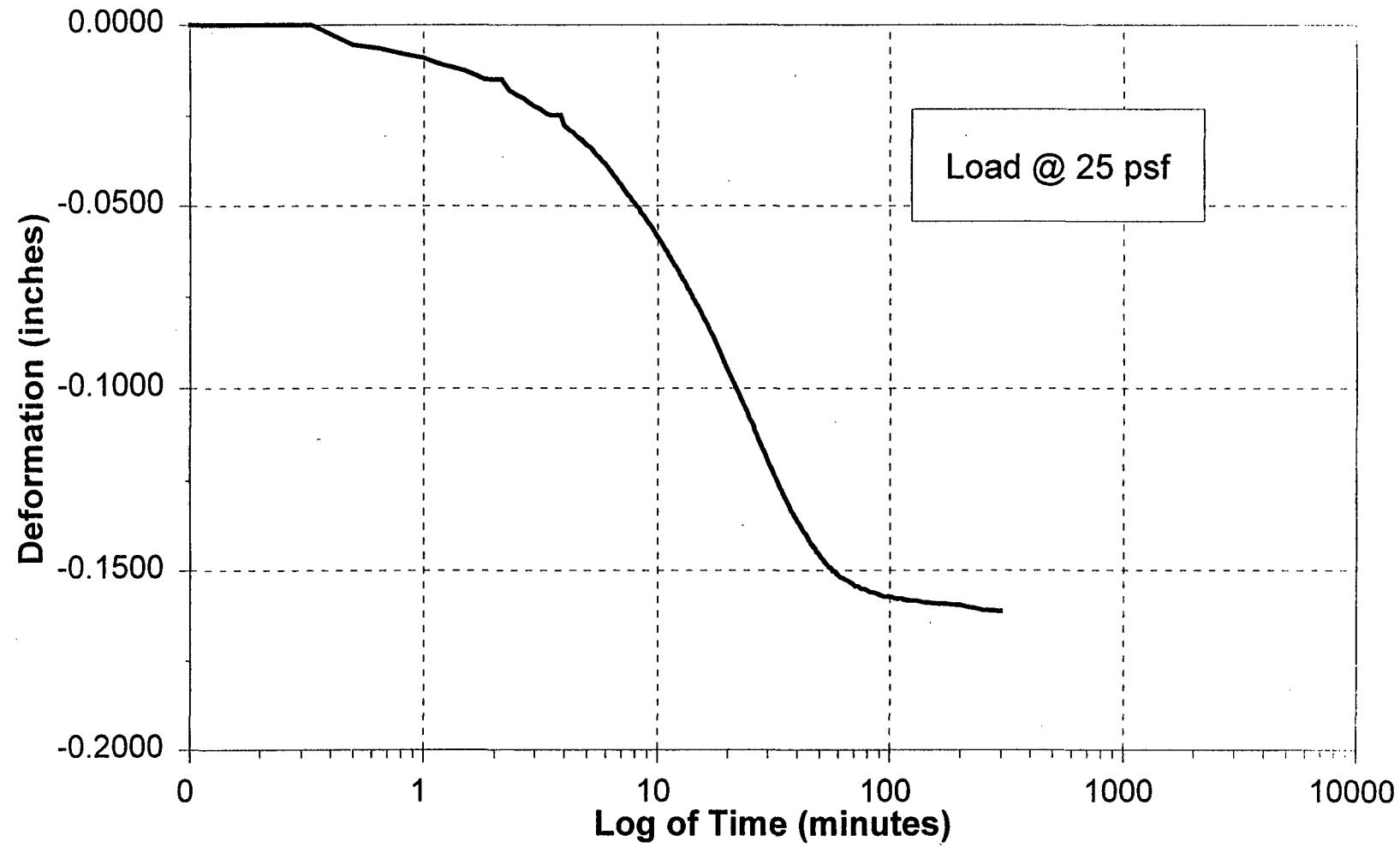


Time Rate of Consolidation

Sample: Pond 12S, BH-2 @ 16.5 feet

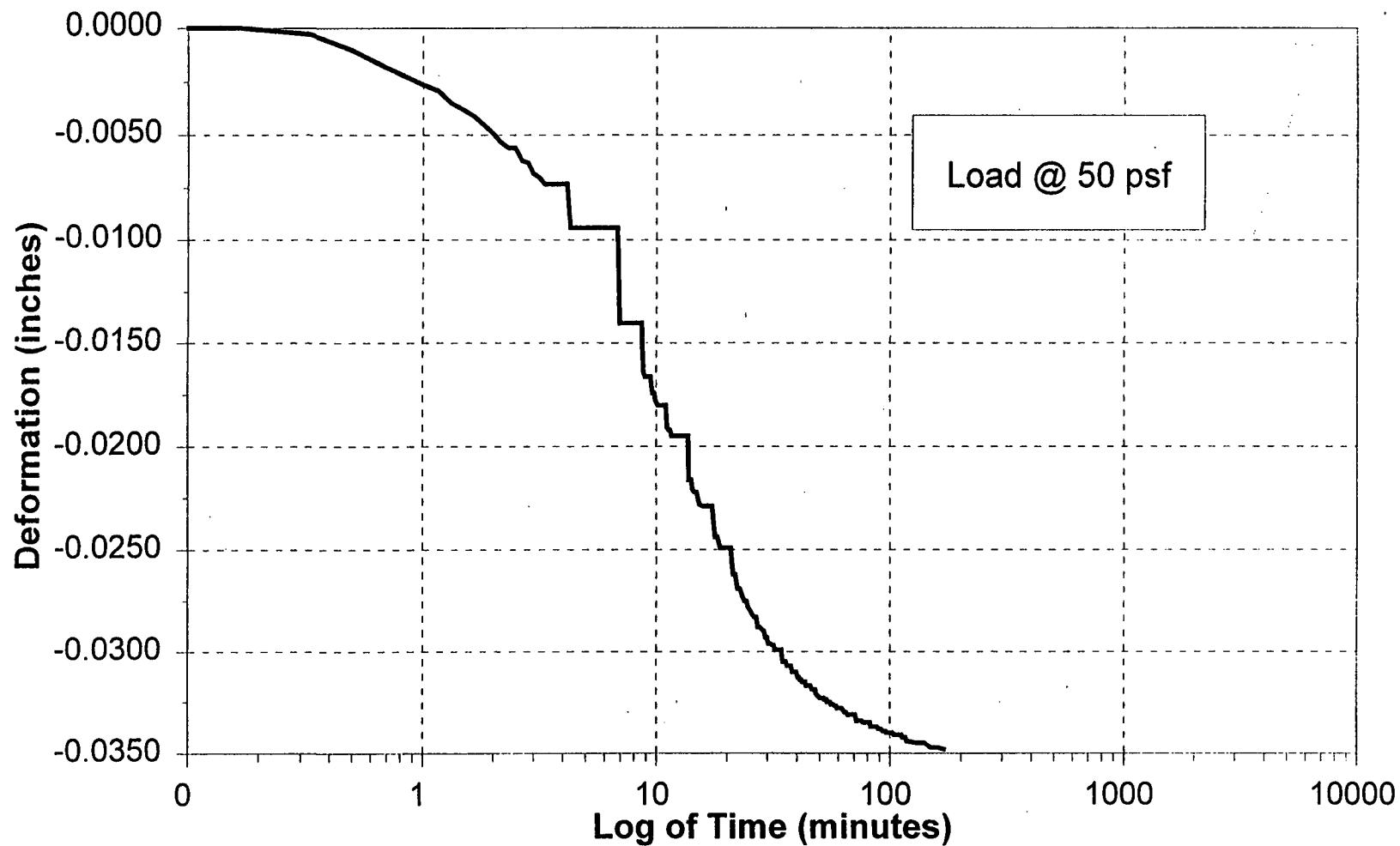


Time Rate of Consolidation
Sample: Pond 12S, BH-3 @ 10.8 feet



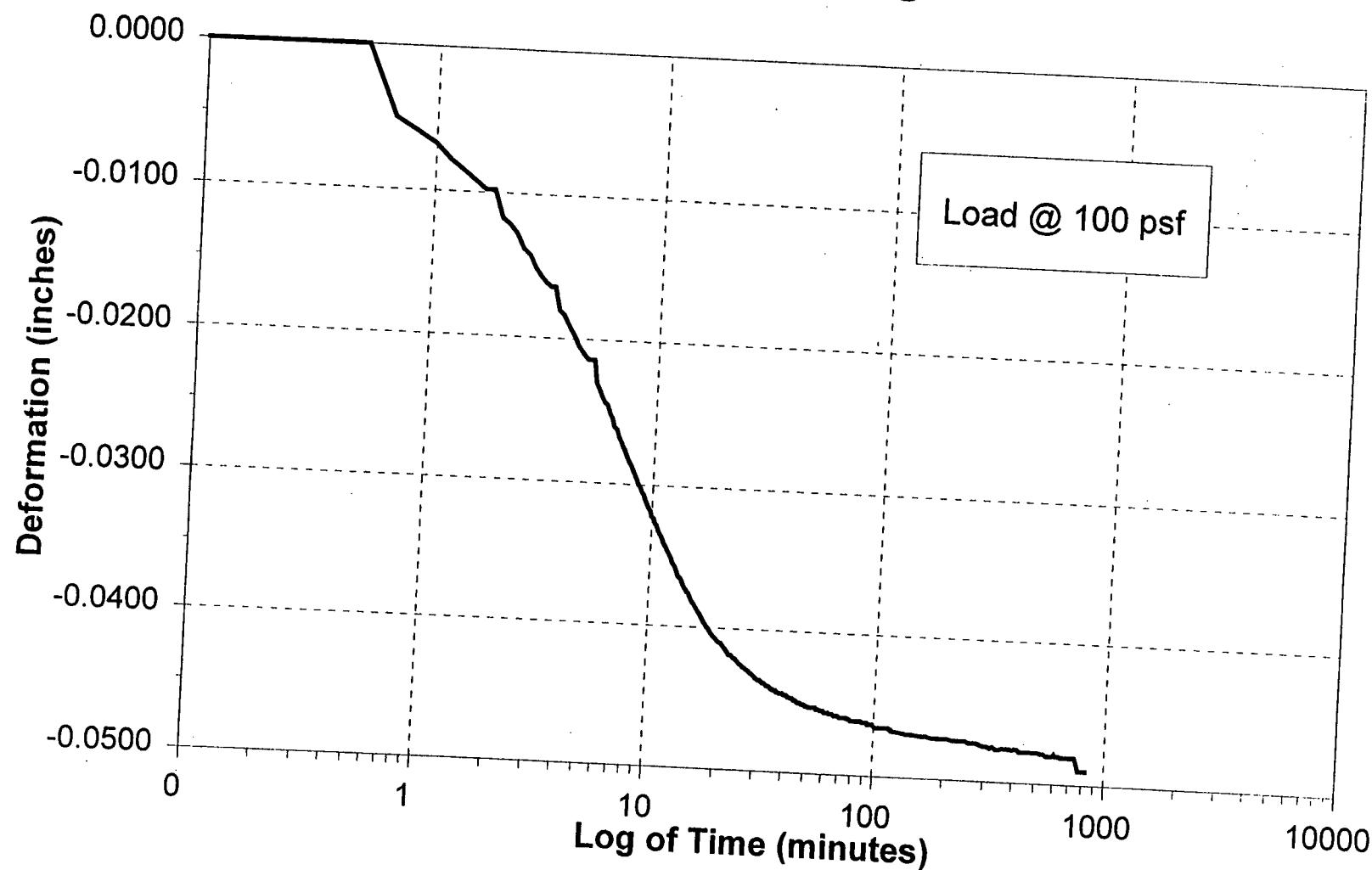
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



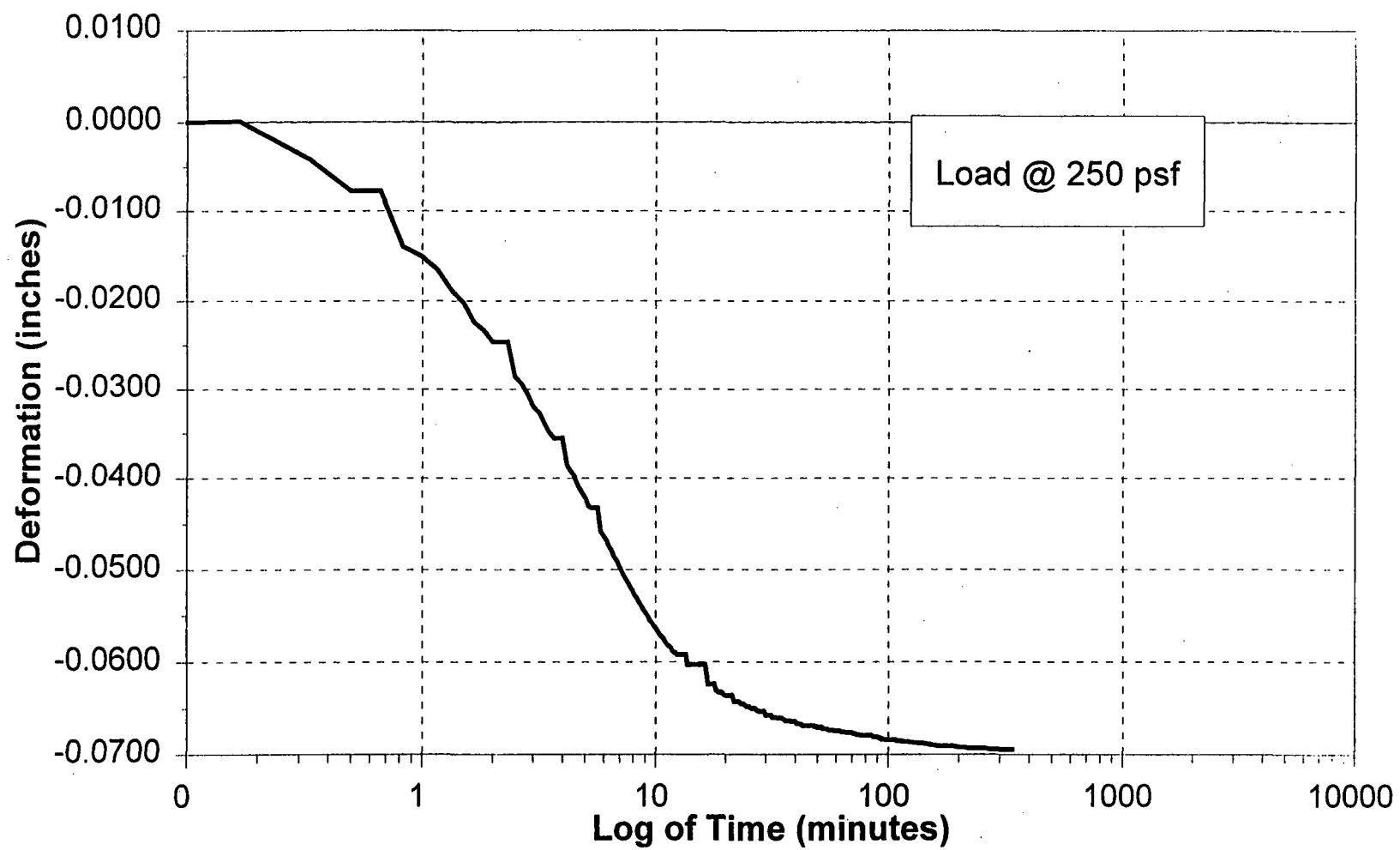
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8'



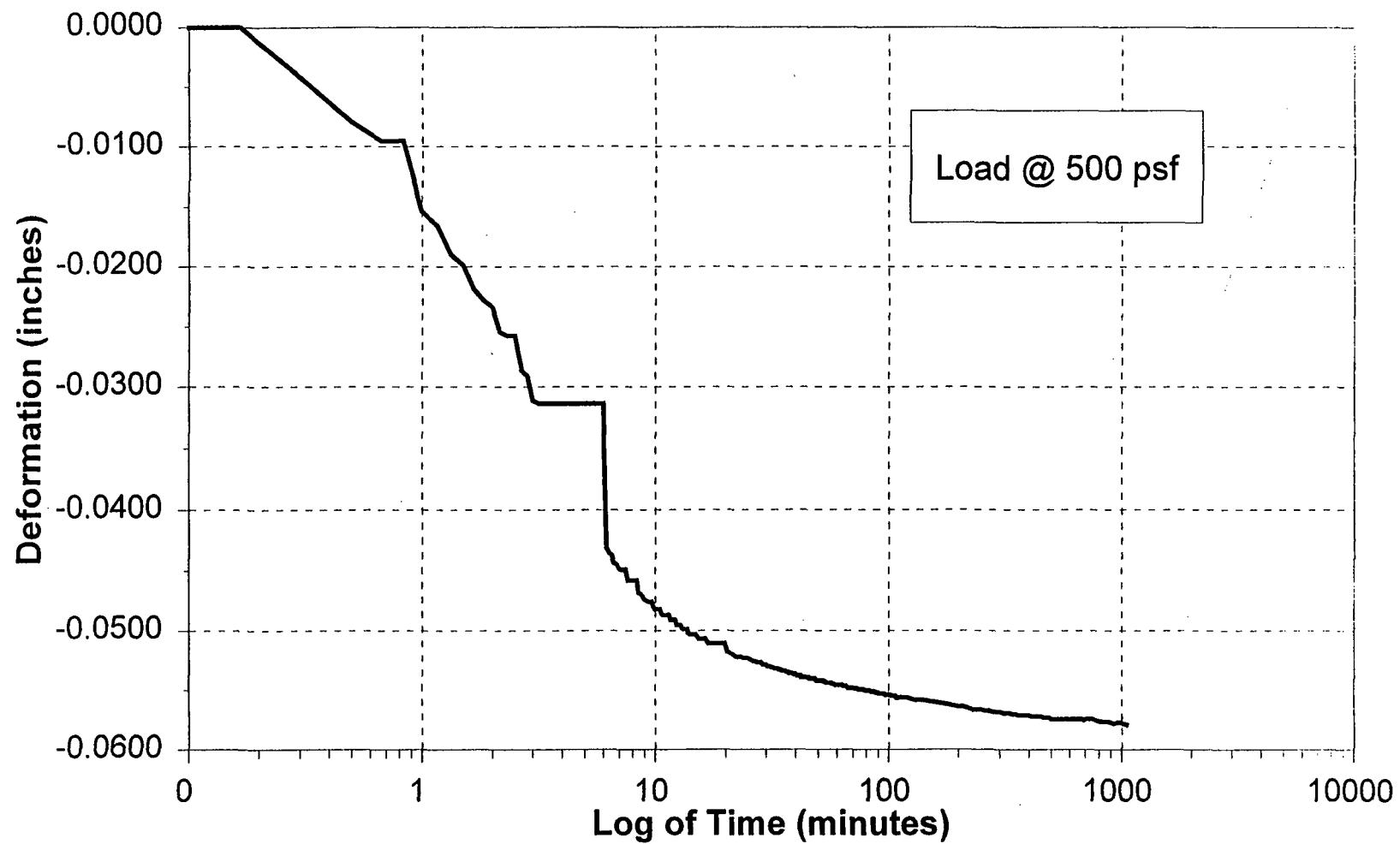
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



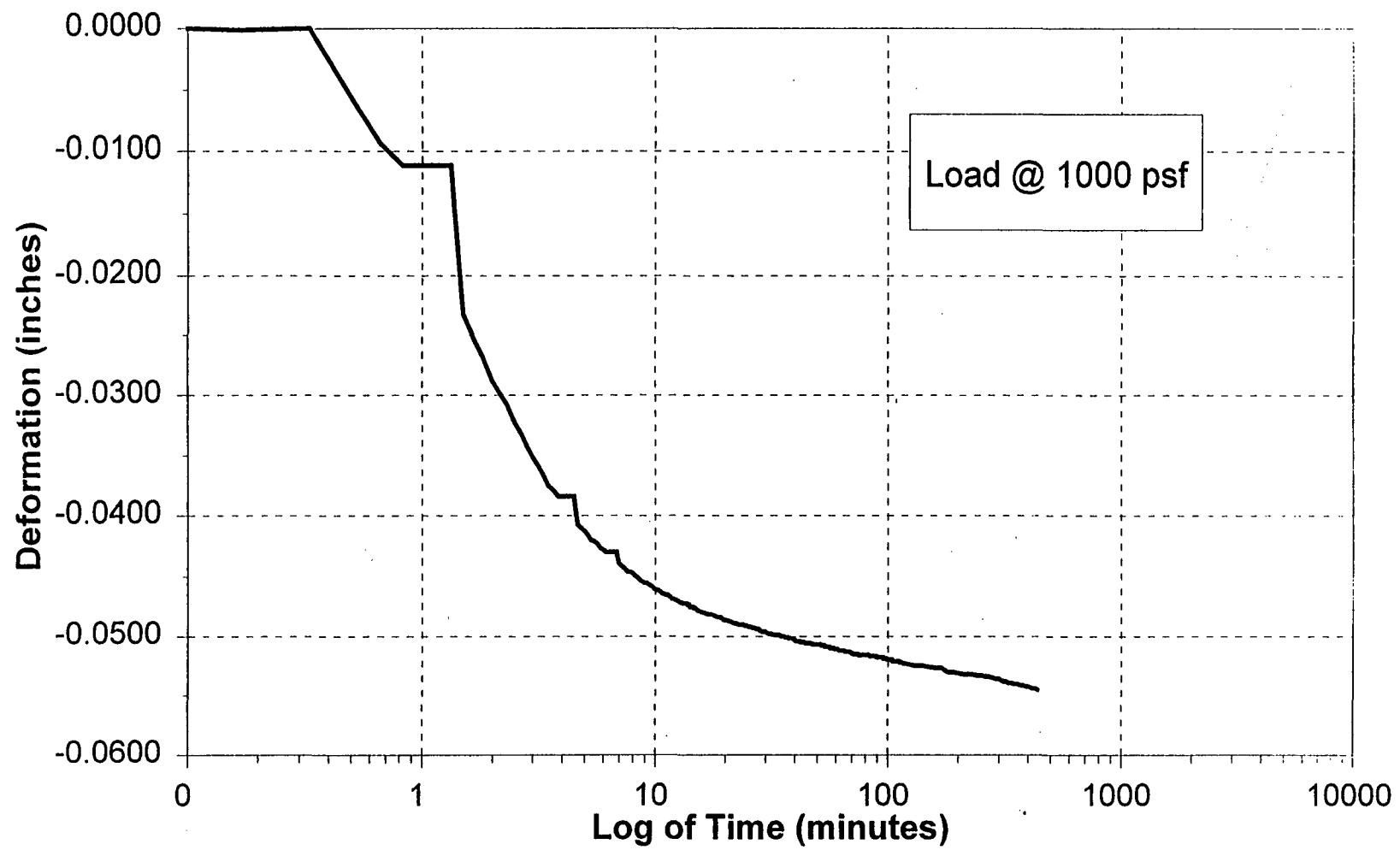
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



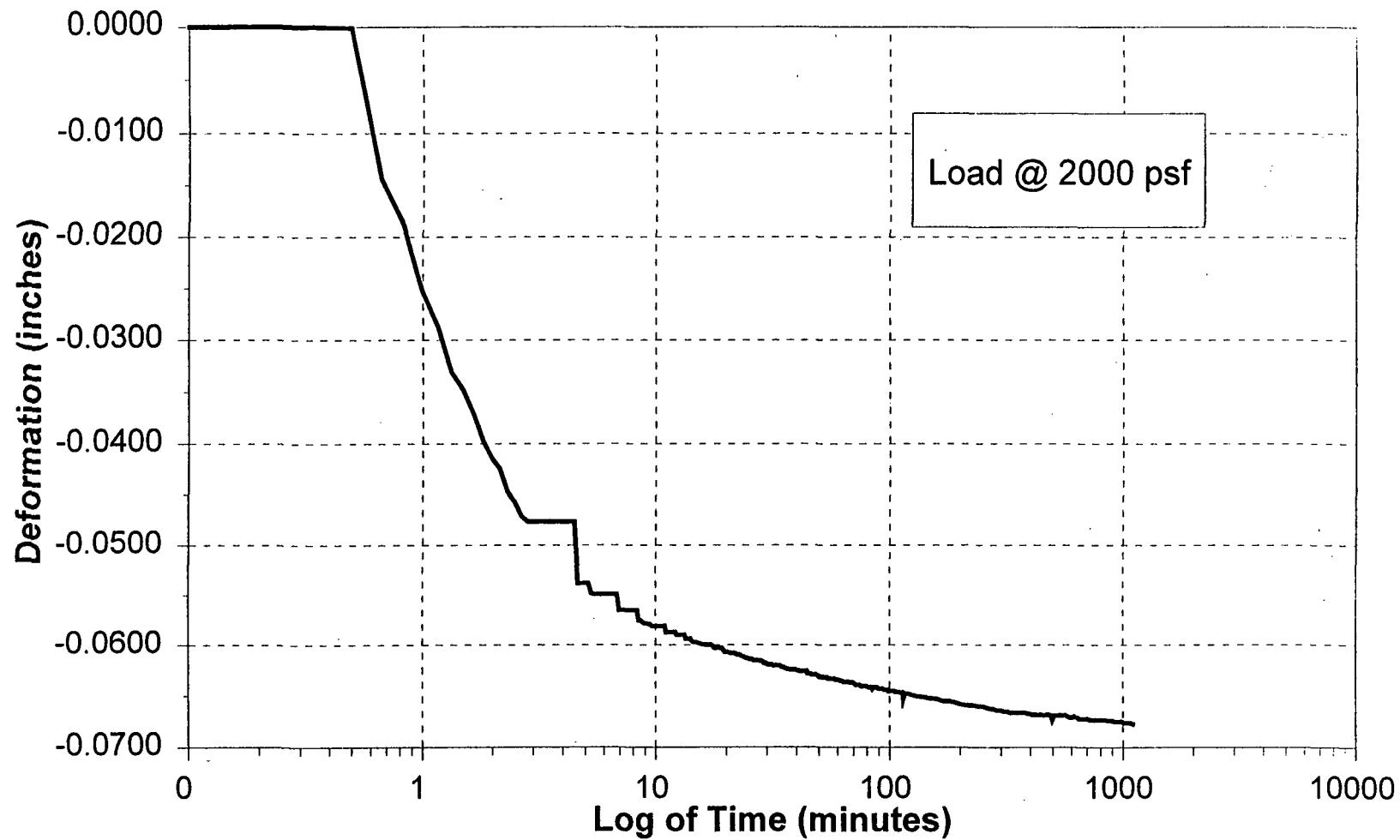
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



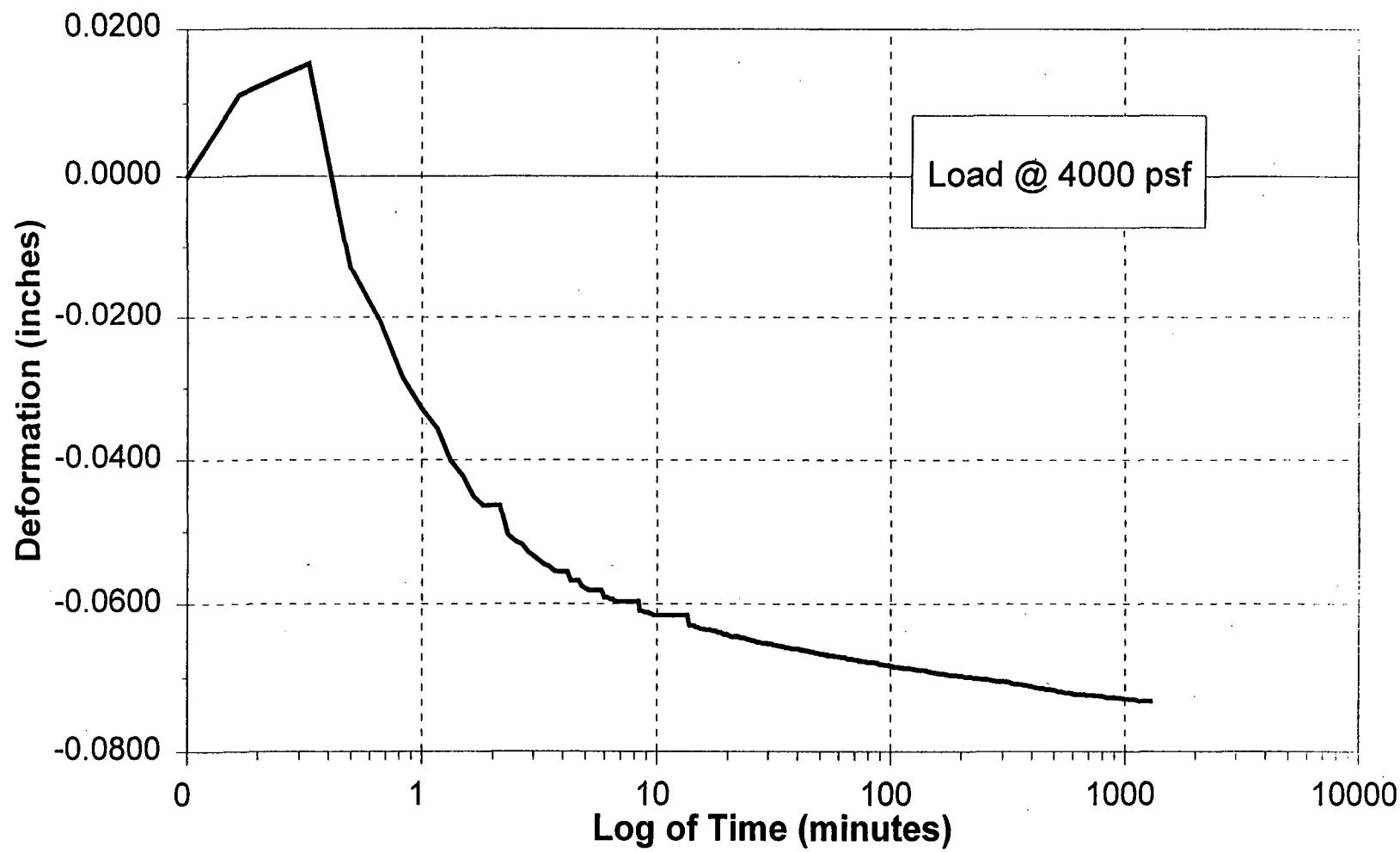
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



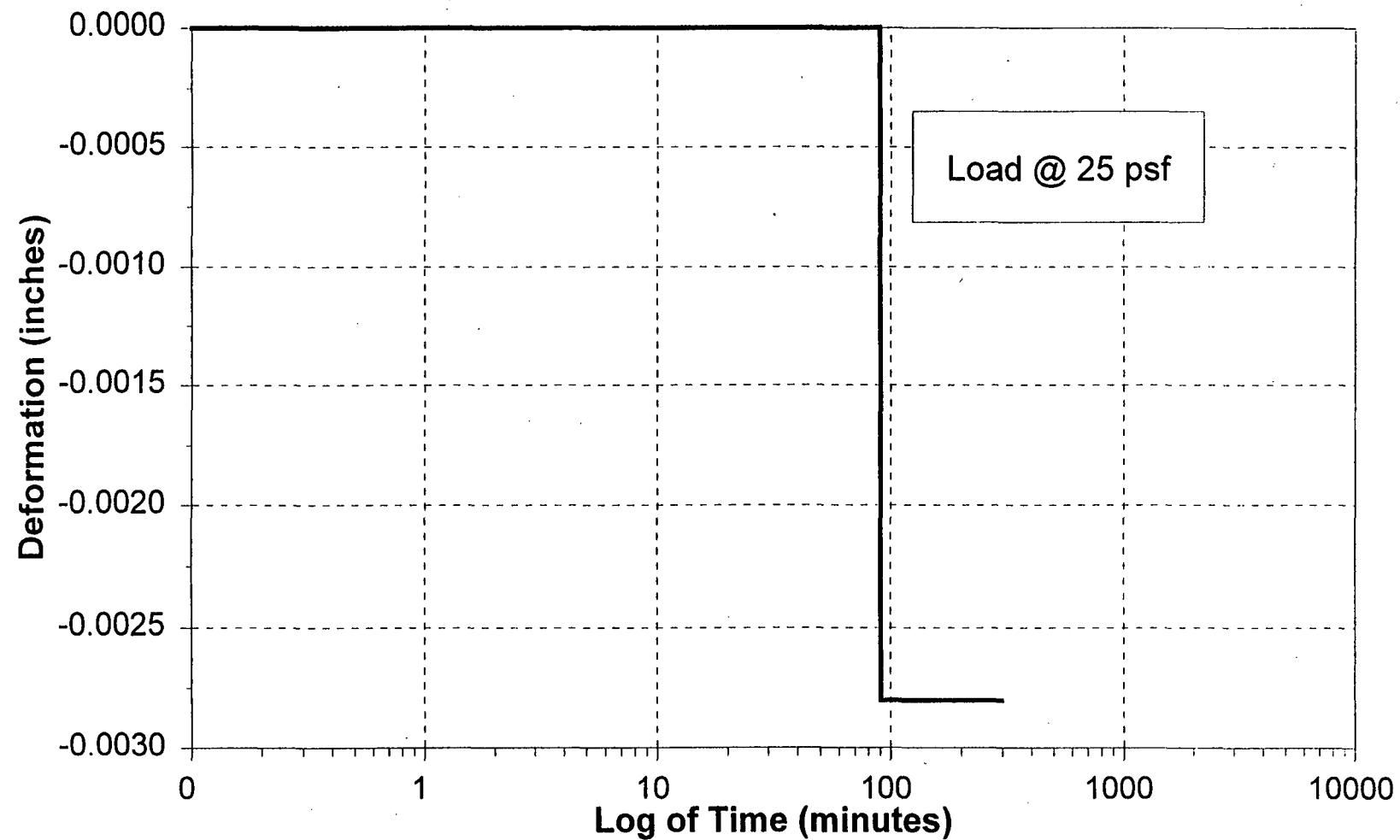
Time Rate of Consolidation

Sample: Pond 12S, BH-3 @ 10.8 feet



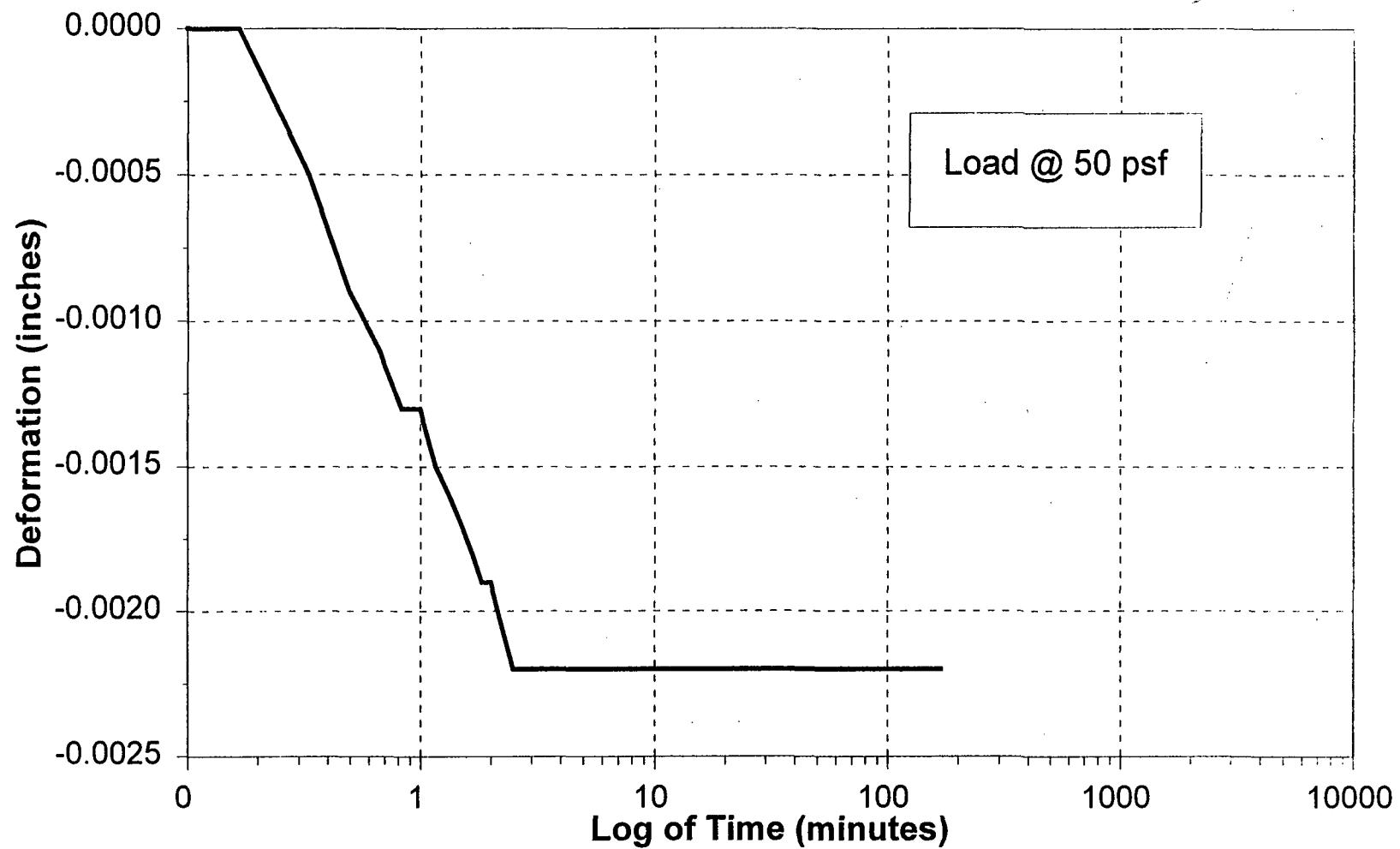
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



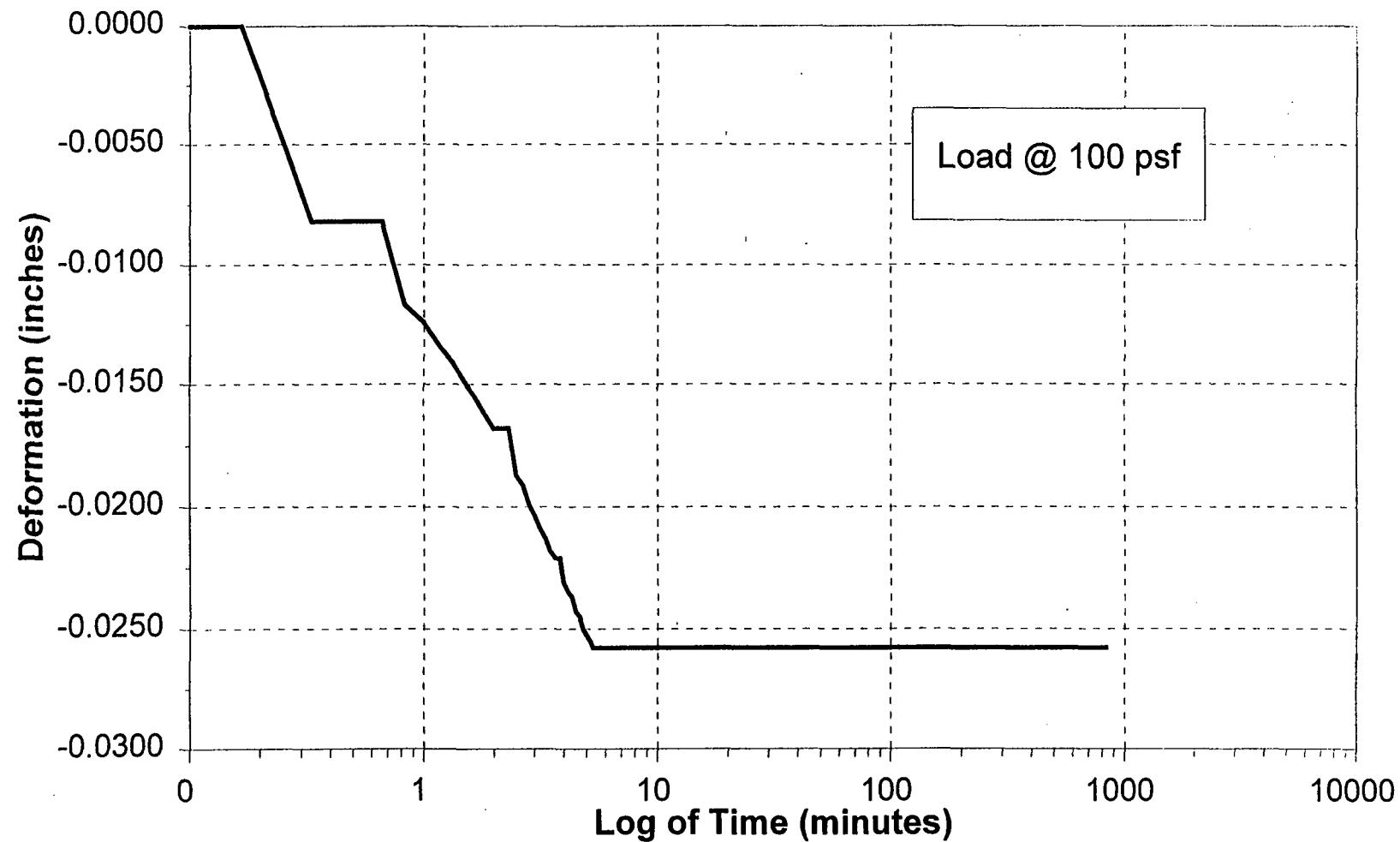
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



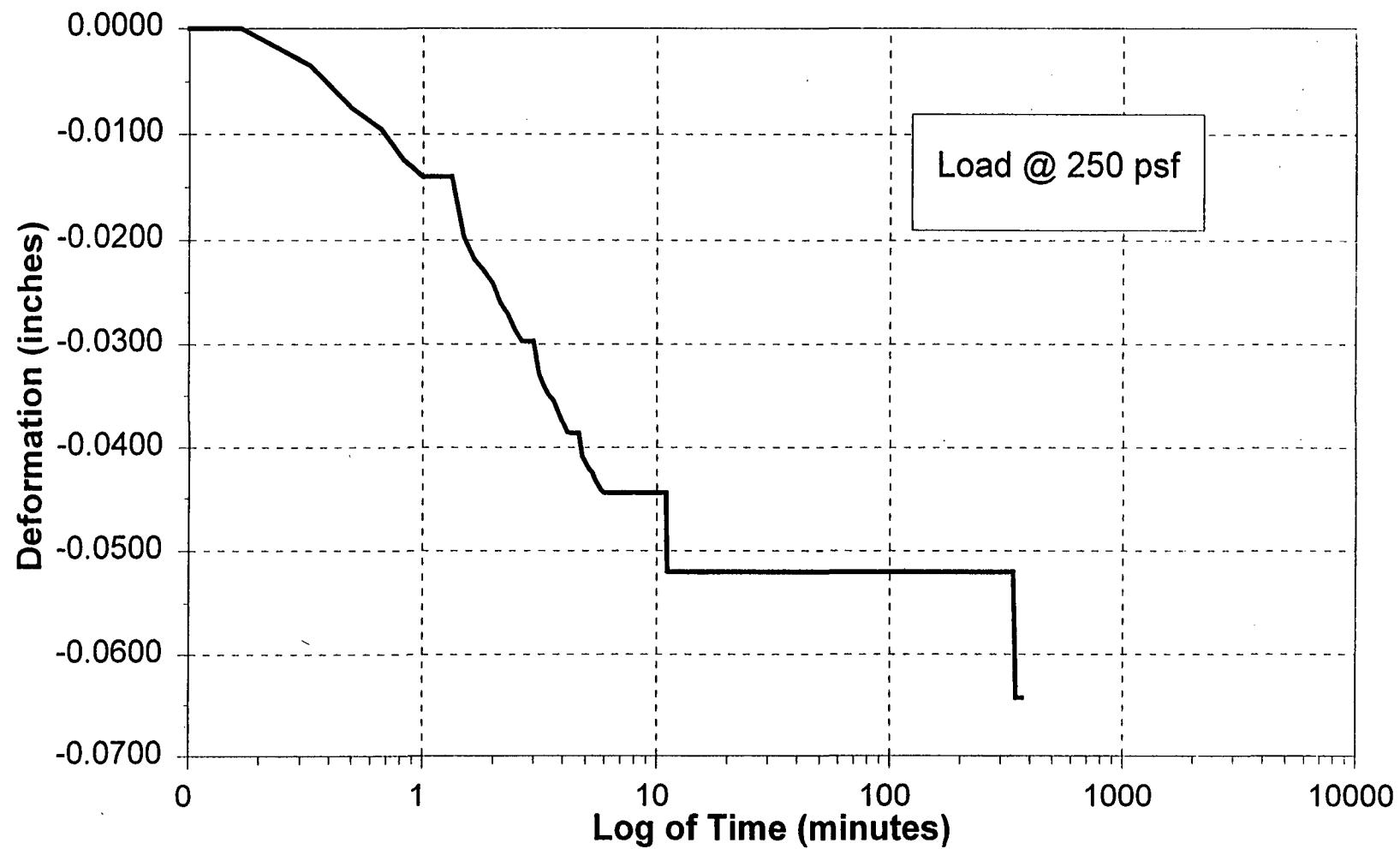
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet

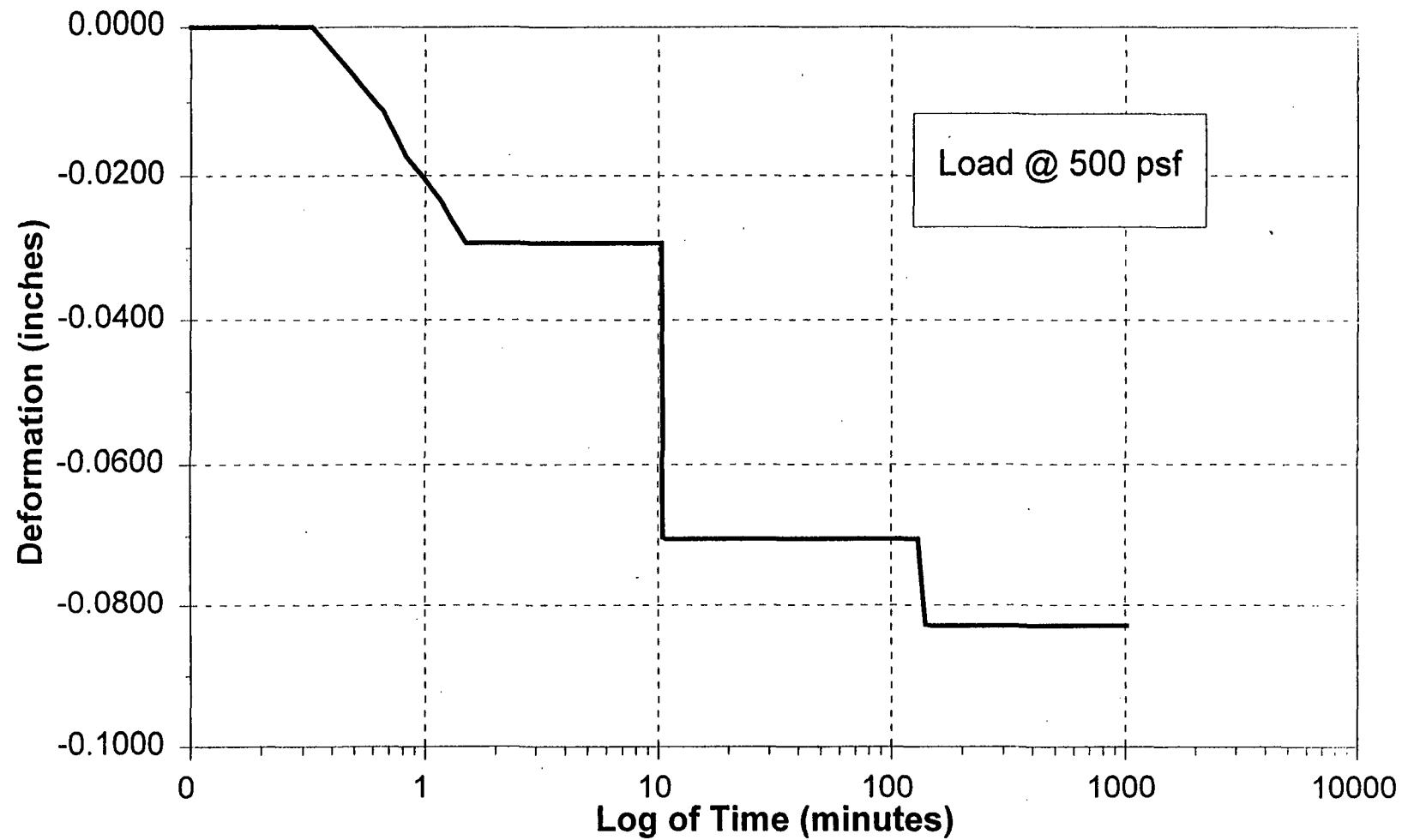


Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet

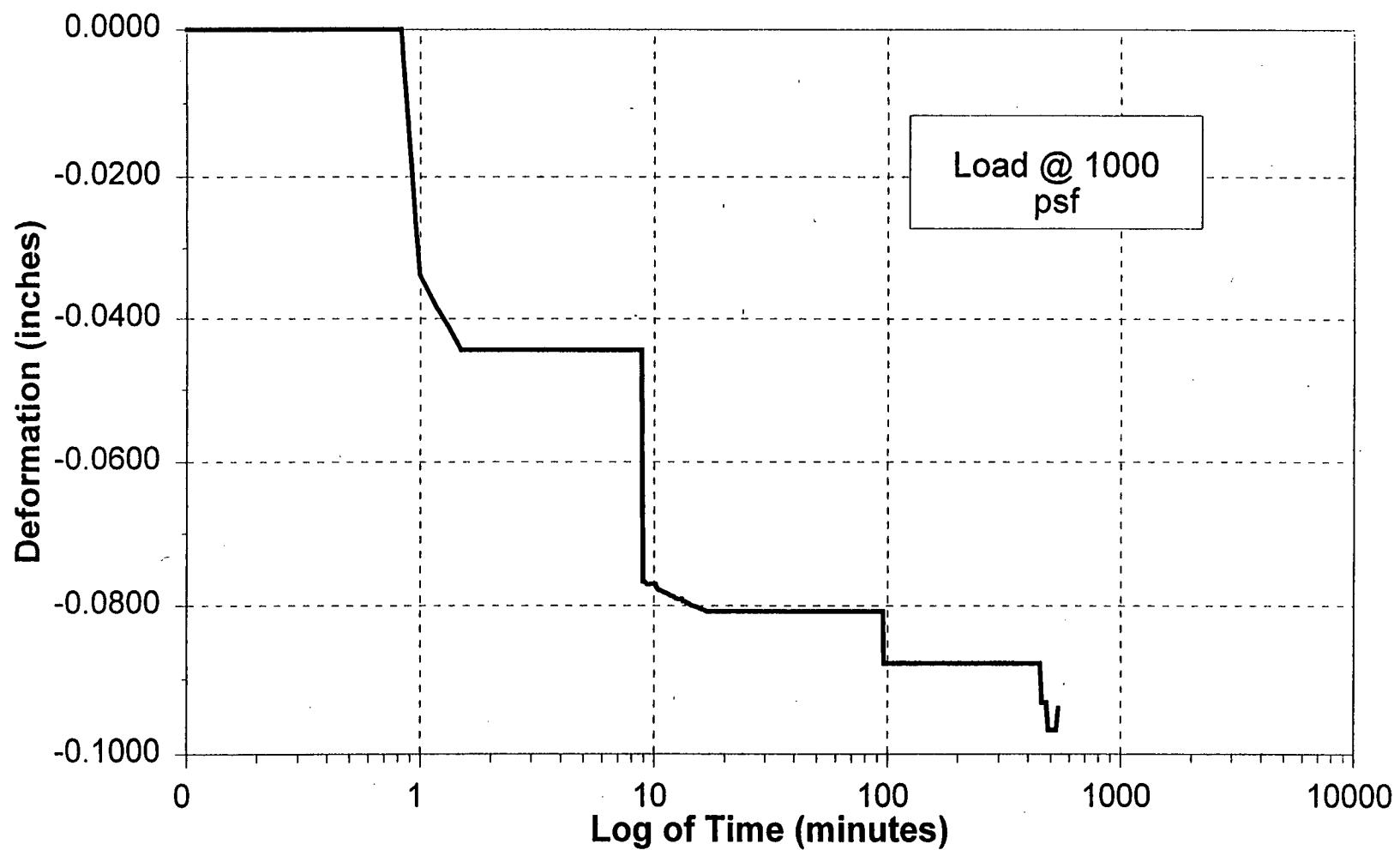


Time Rate of Consolidation
Sample: Pond 13S, BH-3 @ 14.5 feet



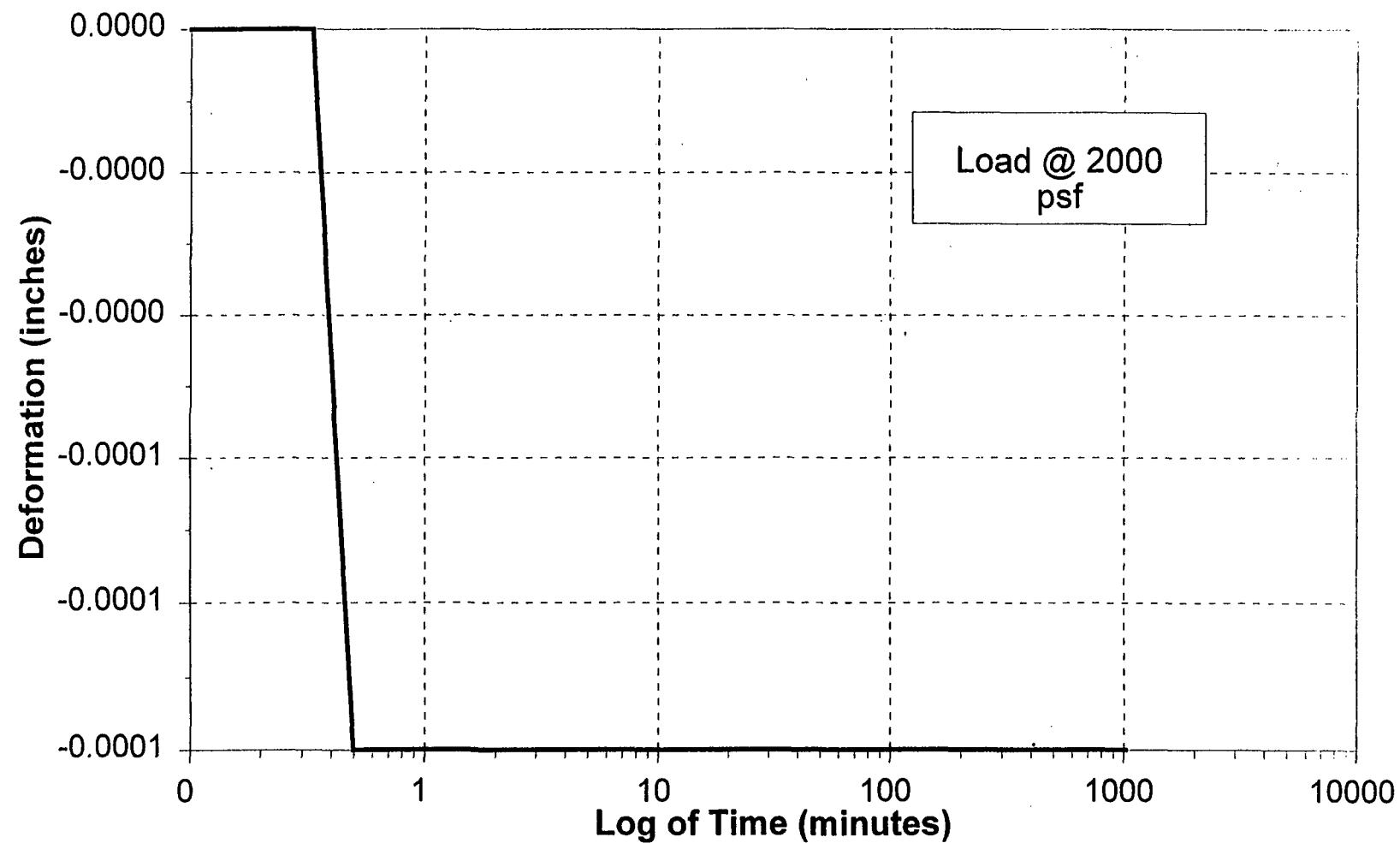
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



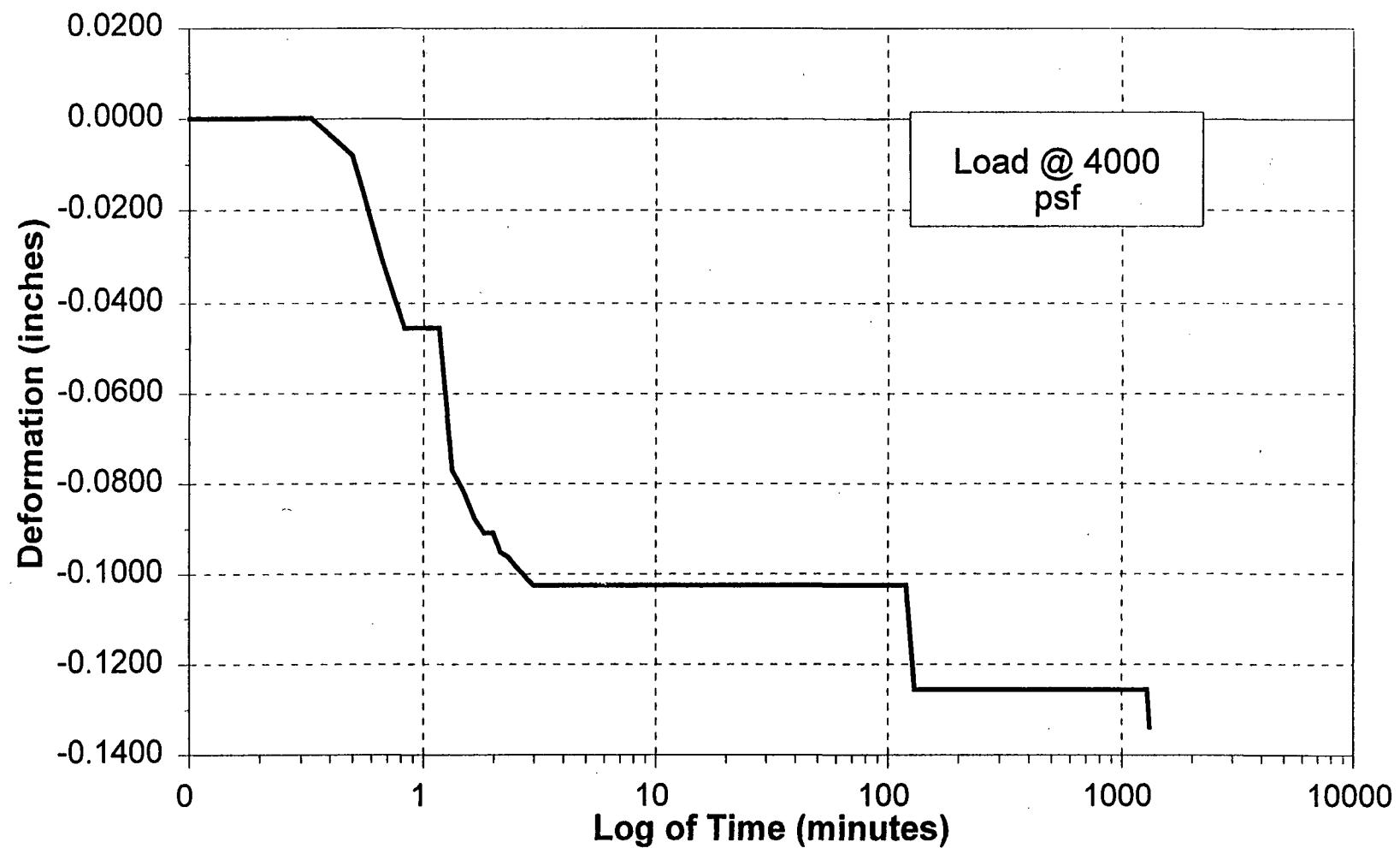
Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



Time Rate of Consolidation

Sample: Pond 13S, BH-3 @ 14.5 feet



APPENDIX A

MOISTURE CONTENT TESTS DATA - CALCULATIONS

Moisture Contents

Laboratory Data

Pond No.	Boring No.	Depth (feet)	Phos. content (measured)	Uncorrected Weights (grams)					Phos. Wt. (g)	Corrected Weights (grams)		MC (uncorr) (%)	MC (corr) (%)
				Flask	Wet Sample + Flask	Wet Sample	Dry Sample + Flask	Dry Sample		Dry Sample	Water		
8E	BH-1	4.0	0.0039	105.81	124.87	19.06	111.86	6.05	13.01	0.001	6.05	13.01	215.04
		7.0	0.0063	101.55	129.55	28.00	109.97	8.42	19.58	0.002	8.42	19.58	232.54
		10.0	0.0103	108.26	134.34	26.08	118.66	10.40	15.68	0.003	10.40	15.68	232.47
		13.0	3.2500	104.87	126.91	22.04	115.80	10.93	11.11	0.716	11.65	10.39	101.65
	BH-2	4.2	0.0589	108.40	131.98	23.58	117.98	9.58	14.00	0.014	9.59	13.99	146.14
		7.2	0.0066	102.94	132.14	29.20	111.61	8.67	20.53	0.002	8.67	20.53	236.79
		10.2	0.0151	101.50	115.52	14.02	106.77	5.27	8.75	0.002	5.27	8.75	166.03
		13.2	0.5773	108.21	126.80	18.59	118.66	8.45	10.14	0.107	8.56	10.03	120.00
	BH-3	4.5	0.0263	104.82	124.49	19.67	112.34	7.52	12.15	0.005	7.53	12.14	161.57
		7.5	0.0070	103.41	153.46	50.05	114.63	11.22	38.83	0.004	11.22	38.83	346.08
		10.5	1.8900	105.76	125.43	19.67	115.73	9.97	9.70	0.372	10.34	9.33	97.29
		13.5	0.1331	108.22	118.52	10.30	112.40	4.18	6.12	0.014	4.19	6.11	146.41
	BH-4	4.2	0.1964	101.28	133.07	31.79	116.67	15.39	16.40	0.062	15.45	16.34	106.56
		7.2	0.0100	101.53	128.01	26.48	109.26	7.73	18.75	0.003	7.73	18.75	242.56
		10.2	0.1631	103.72	126.45	22.73	115.04	11.32	11.41	0.037	11.36	11.37	100.80
		13.2	0.3003	104.34	127.30	22.96	115.73	11.39	11.57	0.089	11.46	11.50	101.58
	BH-5	4.0	0.3000	103.42	128.42	25.00	117.11	13.69	11.31	0.075	13.76	11.23	82.62
		4.5	0.0008	104.36	124.15	19.79	109.82	5.46	14.33	0.000	5.46	14.33	262.45
		7.5	0.0050	107.61	127.97	20.36	113.00	5.39	14.97	0.001	5.39	14.97	277.74
		10.5	0.1143	108.23	239.35	131.12	158.99	50.76	80.38	0.150	50.91	80.21	158.31
	11S	4.5	11.9500	104.35	127.17	22.82	109.23	4.88	17.94	2.727	7.61	15.21	367.62
		7.5	8.4100	103.43	122.41	18.98	108.44	5.01	13.97	1.598	6.61	12.37	278.84
		10.5	3.2900	108.34	250.79	142.45	159.15	50.81	91.84	4.687	55.50	86.95	180.36
		13.5	3.2200	108.35	129.28	20.93	116.83	8.48	12.45	0.674	9.15	11.78	146.82
	12S	7.5	4.5000	101.74	131.25	29.51	109.06	7.32	22.19	1.328	8.65	20.86	303.14
		10.5	7.1100	101.53	242.64	141.11	157.70	56.17	84.94	10.033	66.20	74.91	151.22
		13.5	6.1100	103.41	125.65	22.24	111.57	8.16	14.08	1.359	9.52	12.72	172.55
		16.5	2.3800	102.90	118.96	16.06	109.07	6.17	9.89	0.382	6.55	9.51	160.29
	BH-2	7.5	4.8800	105.76	130.47	24.71	118.58	12.82	11.89	1.208	14.03	10.68	92.75
		10.5	15.5400	101.55	122.23	20.68	107.03	5.48	15.20	3.214	8.69	11.99	277.37
		13.5	7.4000	101.51	129.58	28.07	111.88	10.37	17.70	2.077	12.45	15.62	170.68
		16.5	4.5200	105.77	125.12	19.35	112.86	7.09	12.28	0.875	7.98	11.39	172.92
	BH-3	18.5	0.3638	107.94	131.74	23.80	117.01	9.07	14.73	0.087	9.16	14.64	162.40
		7.8	30.5100	106.72	131.21	24.49	112.70	5.98	18.51	7.472	13.45	11.04	309.53
		10.8	5.6300	101.50	124.52	23.02	110.09	8.59	14.43	1.296	8.89	13.13	167.99
		13.8	0.2898	103.72	118.64	14.92	109.22	5.50	9.42	0.043	5.54	9.38	171.27
	BH-1	16.8	5.1100	101.25	251.05	149.80	159.53	58.28	91.52	7.655	65.93	83.87	157.04
		18.5	0.5733	101.54	130.03	28.49	112.25	10.71	17.78	0.163	10.87	17.62	166.01
		18.8	1.8900	108.36	130.39	22.03	115.49	7.13	14.90	0.372	7.50	14.53	208.98
		17.0	1.8900	108.36	130.39	22.03	115.49	7.13	14.90	0.372	7.50	14.53	193.64
	BH-2	16.0	0.3059	104.82	251.72	146.90	151.42	46.60	100.30	0.449	47.05	99.85	215.24
		15.8	0.2344	101.75	130.38	28.63	109.11	7.36	21.27	0.067	7.43	21.20	288.99
		17.8	0.0266	105.75	129.99	24.24	112.92	7.17	17.07	0.006	7.18	17.06	238.08
		14.5	2.8000	101.49	130.16	28.67	109.39	7.90	20.77	0.803	8.70	19.97	262.91
	BH-3	17.0	1.8900	108.36	130.39	22.03	115.49	7.13	14.90	0.372	7.50	14.53	208.98

APPENDIX B

ATTERBERG LIMIT TESTS DATA - CALCULATIONS

Atterberg Limits

Laboratory Data

LIQUID LIMIT

Pond No.	Boring No.	Depth (feet)	Phos. content (measured)	Uncorrected Weights (grams)					Phos. Wt. (g)	Corrected Weights (grams)			NO. DROPS	DROPS CORR. VALUE	LL (uncorr) (%)	LL (corr) (%)
				Flask	Wet Sample + Flask	Wet Sample	Dry Sample + Flask	Dry Sample		Dry Sample	Water	Water				
8E	BH-1	4.0	0.0039	107.95	114.42	6.47	110.81	2.86	3.61	0.00	2.86	3.61	27	1.009	127.40	127.38
8E	BH-2	4.2	0.0589	101.54	110.50	8.96	105.68	4.14	4.82	0.01	4.15	4.81	21	0.979	113.99	113.72
8E	BH-2	7.2	0.0066	107.60	115.62	8.02	110.66	3.06	4.96	0.00	3.06	4.96	20	0.973	157.77	157.73
8E	BH-3	10.5	1.8900	107.94	118.41	10.47	114.49	6.55	3.92	0.20	6.75	3.72	28	1.014	60.67	55.92
8E	BH-5	13.5	0.3229	108.35	116.93	8.58	112.65	4.30	4.28	0.03	4.33	4.25	29	1.018	101.34	100.04
11S	BH-1	13.5	3.2200	102.88	111.13	8.25	106.87	3.99	4.26	0.27	4.26	3.99	20	0.973	103.92	91.36
12S	BH-1	16.5	2.3800	103.72	110.77	7.05	106.93	3.21	3.84	0.17	3.38	3.67	20	0.973	116.44	105.82
12S	BH-2	10.5	15.5400	104.34	114.29	9.95	110.52	6.18	3.77	1.55	7.73	2.22	27	1.009	61.57	29.05
12S	BH-3	13.8	0.2898	104.82	114.07	9.25	109.23	4.41	4.84	0.03	4.44	4.81	28	1.014	111.27	109.98

PLASTIC LIMIT/PLASTICITY INDEX

Boring No.	Sample No.	Depth (feet)	Phos. content (measured)	Uncorrected Weights (grams)					Phos. Wt. (g)	Corrected Weights (grams)			PL (uncorr) (%)	PL (corr) (%)	PI (uncorr) (%)	PI (corr) (%)
				Flask	Wet Sample + Flask	Wet Sample	Dry Sample + Flask	Dry Sample		Dry Sample	Water	Water				
8E	BH-1	4.0	0.0039	106.73	111.02	4.29	109.69	2.96	1.33	0.00	2.96	1.33	44.93	44.92	82.47	82.46
8E	BH-2	4.2	0.0589	103.72	116.03	12.31	112.40	8.68	3.63	0.01	8.69	3.62	41.82	41.70	72.17	72.02
8E	BH-2	7.2	0.0066	101.75	116.82	15.07	112.26	10.51	4.56	0.00	10.51	4.56	43.39	43.37	114.39	114.36
8E	BH-3	10.5	1.8900	106.72	122.64	15.92	118.13	11.41	4.51	0.30	11.71	4.21	39.63	35.94	21.15	19.98
8E	BH-5	13.5	0.3229	102.90	130.26	27.36	120.74	17.84	9.52	0.09	17.93	9.43	53.36	52.61	47.98	47.43
11S	BH-1	13.5	3.2200	101.23	114.13	12.90	109.16	7.93	4.97	0.42	8.35	4.55	62.67	64.68	41.25	36.78
12S	BH-1	16.5	2.3800	101.28	111.27	10.01	106.95	5.69	4.32	0.24	5.93	4.08	76.92	68.85	40.52	36.97
12S	BH-2	10.5	15.5400	107.62	120.13	12.51	116.72	9.10	3.41	1.94	11.04	1.47	37.47	13.27	24.10	15.78
12S	BH-3	13.8	0.2898	108.22	129.27	21.05	121.40	13.18	7.87	0.06	13.24	7.81	59.71	58.98	51.55	51.01

*Sample from Pond 13S BH-2 @ 15.8 could not be performed due to initial wetness.

APPENDIX C

SPECIFIC GRAVITY TESTS DATA - CALCULATIONS

Specific Gravity

Laboratory Data

Pond No.	Boring No.	Depth (feet)	Cal. Flask Volume	Dry Sample	Dry Sample +Flask Vol	Flask+Soil +Water	Displaced Water	Temp. of Water & Soil	Temp. Corr. Factor	Specific Gravity	Average Specific Gravity
8E	BH-3	7.5	359.49	18.65	378.14	371.57	6.57	21.5	0.9997	2.838	2.838
8E	BH-5	10.5	336.44	25.00	361.44	352.43	9.01	22.0	0.9997	2.774	2.805
11S	BH-1	10.5	339.22	25.05	364.27	355.30	8.97	20.0	1.0000	2.793	2.789
12S	BH-1	10.5	336.47	26.45	362.92	353.74	9.18	21.5	0.9997	2.880	2.914
12S	BH-3	16.8	362.43	29.06	391.49	380.94	10.55	21.0	0.9998	2.754	2.729
13S	BH-1	16.0	359.67	22.50	382.17	373.77	8.40	18.0	1.0004	2.680	2.670

APPENDIX D

GRADATION/HYDROMETER TESTS DATA - CALCULATIONS

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-1 @ 10 feet

TOTAL SAMPLE WEIGHT (dry) 26.03

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 26.03 Sample Wet Weight 65.27

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	26.027914	100	WET+DISH 134.34
NO. 16	0.00	26.017914	100	DRY+DISH 118.66
NO. 40	0.01	26.017914	100	DISH 108.26
NO. 50	0.01	26.007914	100	WET 26.08
NO. 100	0.02	26.007914	100	DRY 10.40
NO. 200	0.04	25.987914	100	MC% 150.77

HYDROMETER

SAMPLE WEIGHT (WET) 65.27 SPECIFIC GRAVITY 2.79 8
 Wc 26.03 MENISCUS CORR. 1
 CYLINDER NO. 2
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	32	21	6	26	97	33	0.01291	10.9
5	31	21	6	25	93	32	0.01291	11.0
15	28	21	6	22	82	29	0.01291	11.5
30	26	21	6	20	75	27	0.01291	11.9
60	24	22	6	18	67	25	0.01276	12.2
250	21	25	5	16	60	22	0.01232	12.7
1440	17	23	5	12	45	18	0.01261	13.3

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-1 @ 13 feet

TOTAL SAMPLE WEIGHT (dry) 69.62

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	1.04	99

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 69.62 Sample Wet Weight 140.39

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	4.71	64.91172	93	WET+DISH 126.91
NO. 16	4.71	54.47172	93	DRY+DISH 115.80
NO. 40	15.15	54.47172	78	DISH 104.87
NO. 50	15.15	54.47172	78	WET 22.04
NO. 100	31.96	37.66172	54	DRY 10.93
NO. 200	37.57	32.05172	46	MC% 101.65

HYDROMETER

SAMPLE WEIGHT (WET) 140.39 SPECIFIC GRAVITY 2.79
 Wc 74.67 MENISCUS CORR. 8

CYLINDER NO. 1
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	35	21	6	29	38	36	0.01291	10.4	0.029
5	30	21	6	24	31	31	0.01291	11.2	0.019
15	27	21	6	21	27	28	0.01291	11.7	0.011
30	24	21	6	18	23	25	0.01291	12.2	0.008
60	22	22	6	16	21	23	0.01276	12.5	0.006
250	18	25	5	13	17	19	0.01232	13.2	0.003
1440	15	24	5	10	13	16	0.01246	13.7	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-2 @ 4.2 feet

TOTAL SAMPLE WEIGHT (dry) 59.39

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 59.39 Sample Wet Weight 146.19

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	59.393562	100	WET+DISH 131.98
NO. 16	0.00	59.383562	100	DRY+DISH 117.98
NO. 40	0.01	59.383562	100	DISH 108.40
NO. 50	0.01	59.323562	100	WET 23.58
NO. 100	0.07	59.323562	100	DRY 9.58
NO. 200	0.49	58.903562	99	MC% 146.14

HYDROMETER

SAMPLE WEIGHT (WET) 146.19 Wc 59.39 SPECIFIC GRAVITY 2.79

CYLINDER NO. 13
CYLINDER AREA 27.8

8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	49	21	6	43	70	50	0.01291	8.1	0.026
5	49	21	6	43	70	50	0.01291	8.1	0.016
15	39	21	6	33	54	40	0.01291	9.7	0.010
30	36	21	6	30	49	37	0.01291	10.2	0.008
60	31	22	6	25	41	32	0.01276	11.0	0.005
250	25	25	5	20	33	26	0.01232	12.0	0.003
1440	18	24	5	13	21	19	0.01246	13.2	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-2 @ 13.2 feet

TOTAL SAMPLE WEIGHT (dry) 34.35

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	1.6	95

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 34.35 Sample Wet Weight 75.57

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION	
	NO. 10	4.62	29.73	WET+DISH	126.80
NO. 16	4.62	27.84	87	DRY+DISH	116.66
NO. 40	6.51	27.84	81	DISH	108.21
NO. 50	6.51	27.26	81	WET	18.59
NO. 100	7.09	26.9	79	DRY	8.45
NO. 200	7.45		78	MC%	120.00

HYDROMETER

SAMPLE WEIGHT (WET) 75.57 SPECIFIC GRAVITY 2.79
 Wc 39.69 MENISCUS CORR. 8
 CYLINDER NO. 12
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	31	21	6	25	61	32	0.01291	11.0	0.030
5	30	21	6	24	59	31	0.01291	11.2	0.019
15	27	22	6	21	51	28	0.01276	11.7	0.011
30	25	22	6	19	46	26	0.01276	12.0	0.008
60	24	22	6	18	44	25	0.01276	12.2	0.006
250	20	26	5	15	37	21	0.01218	12.9	0.003
1440	15	24	5	10	24	16	0.01246	13.7	0.001

SIEVE/HYDROMETER WORKSHEET

Project #
Project
Sample Loc.

973376
FMC Corp
Pond 8E, BH-3 @ 4.5 feet

TOTAL SAMPLE WEIGHT (dry)

51.37

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY)

51.37

Sample Wet Weight

134.37

SIEVE SIZE
NO. 10
NO. 16
NO. 40
NO. 50
NO. 100
NO. 200

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING			MOISTURE CORRECTION	
			100	WET+DISH	124.49	DRY+DISH	112.34
NO. 10	0.00	51.370737	100	WET	19.67	DISH	104.82
NO. 16	0.00	51.360737	100	DRY	7.52		
NO. 40	0.01	51.360737	100	MC%	161.57		
NO. 50	0.01	51.350737					
NO. 100	0.02	51.350737					
NO. 200	0.04	51.330737					

HYDROMETER

SAMPLE WEIGHT (WET)

134.37

Wc 51.37

SPECIFIC GRAVITY
MENISCUS CORR.

2.79

8

CYLINDER NO.
CYLINDER AREA

14
27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	48	21	6	42	79	49	0.01291	8.3 0.026
5	48	21	6	42	79	49	0.01291	8.3 0.017
15	45	22	6	39	74	46	0.01276	8.8 0.010
30	42	22	6	36	68	43	0.01276	9.2 0.007
60	38	22	6	32	60	39	0.01276	9.9 0.005
250	27	26	5	22	42	28	0.01218	11.7 0.003
1440	19	24	5	14	26	20	0.01246	13.0 0.001

SIEVE/HYDROMETER WORKSHEET

Project #	973376
Project	FMC Corp
Sample Loc.	Pond 8E, BH-4 @ 4.2 feet

TOTAL SAMPLE WEIGHT (dry) 63.33

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 63.33 Sample Wet Weight 130.72

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	63.325847	100	WET+DISH 133.07
NO. 16	0.00	63.175847	100	DRY+DISH 116.67
NO. 40	0.15	63.175847	100	DISH 101.26
NO. 50	0.15	57.775847	100	WET 31.81
NO. 100	5.65	52.775847	91	DRY 15.41
NO. 200	10.55		83	MC% 106.42

HYDROMETER

SAMPLE WEIGHT (WET) 130.72 Wc 63.33 SPECIFIC GRAVITY 2.79 MENISCUS CORR. 1 8

CYLINDER NO. 12
CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	36	21	6	30	46	37	0.01291	10.2	0.029
5	36	21	6	30	46	37	0.01291	10.2	0.018
15	34	21	6	28	43	35	0.01291	10.6	0.011
30	33	20	6	27	41	34	0.01307	10.7	0.008
60	32	20	6	26	40	33	0.01307	10.9	0.006
250	27	20	6	21	32	28	0.01307	11.7	0.003
1440	19	18	6	13	20	20	0.01339	13.0	0.001

SIEVE/HYDROMETER WORKSHEET

Project #
Project
Sample Loc.

973376
FMC Corp
Pond 8E, BH-4 @ 7.2 feet

TOTAL SAMPLE WEIGHT (dry)

63.19

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 63.19 Sample Wet Weight 130.44

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION	
				WET+DISH	DRY+DISH
NO. 10	0.02	63.170204	100	133.07	
NO. 16	0.02	63.130204	100	116.67	
NO. 40	0.06	63.130204	100	101.26	
NO. 50	0.06	63.070204	100	31.81	
NO. 100	0.12	63.020204	100	15.41	
NO. 200	0.17		100	106.42	

HYDROMETER

SAMPLE WEIGHT (WET) 130.44 SPECIFIC GRAVITY
Wc 63.21 MENISCUS CORR. 2.79 8

CYLINDER NO. 1
CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	33	21	6	27	41	34	0.01291	10.7	0.030
5	33	21	6	27	41	34	0.01291	10.7	0.019
15	32	20	6	26	40	33	0.01307	10.9	0.011
30	31	20	6	25	38	32	0.01307	11.0	0.008
60	30	20	6	24	37	31	0.01307	11.2	0.006
250	27	21	6	21	32	28	0.01291	11.7	0.003
1440	25	18	7	18	28	26	0.01339	12.0	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-4 @ 10.2 feet

TOTAL SAMPLE WEIGHT (dry) 74.97

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 74.97 Sample Wet Weight 150.53

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.05	74.916986	100	WET+DISH 126.45
NO. 16	0.05	73.026986	100	DRY+DISH 115.04
NO. 40	1.94	73.026986	97	DISH 103.72
NO. 50	1.94	73.026986	97	WET 22.73
NO. 100	37.29	37.676986	50	DRY 11.32
NO. 200	45.67	29.296986	39	MC% 100.80

HYDROMETER

SAMPLE WEIGHT (WET) 150.53 SPECIFIC GRAVITY 2.79
 CYLINDER NO. 13 Wc 75.02 MENISCUS CORR. 1
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	23	21	6	17	22	24	0.01291	12.4	0.032
5	16	21	6	10	13	17	0.01291	13.5	0.021
15	16	20	6	10	13	17	0.01307	13.5	0.012
30	15	20	6	9	12	16	0.01307	13.7	0.009
60	15	20	6	9	12	16	0.01307	13.7	0.006
250	14	21	6	8	10	15	0.01291	13.8	0.003
1440	13	18	7	6	8	14	0.01339	14.0	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-4 @ 13.2 feet

TOTAL SAMPLE WEIGHT (dry) 64.79

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	.0	100
3"	.0	100
1-1/2"	.0	100
3/4"	.0	100
3/8"	.0	100
NO. 4	.0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 64.79 Sample Wet Weight 130.60

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	.24	64.548066	100	WET+DISH 127.30
NO. 16	.24	63.428066	100	DRY+DISH 115.73
NO. 40	1.36	63.428066	98	DISH 104.34
NO. 50	1.36	59.838066	98	WET 22.96
NO. 100	4.95	57.018066	92	DRY 11.39
NO. 200	7.77		88	MC% 101.58

HYDROMETER

SAMPLE WEIGHT (WET) 130.60 SPECIFIC GRAVITY 2.79 8
 Wc 65.03 MENISCUS CORR. 1

CYLINDER NO. 14
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	56	20	6	50	75	57	0.01307	6.9	0.024
5	48	20	6	42	63	49	0.01307	8.3	0.017
15	39	20	6	33	49	40	0.01307	9.7	0.011
30	37	20	6	31	46	38	0.01307	10.1	0.008
60	35	19	6	29	43	36	0.01323	10.4	0.006
250	29	21	6	23	34	30	0.01291	11.4	0.003
1440	22	18	7	15	22	23	0.01339	12.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 8E, BH-5 @ 7.5 feet

TOTAL SAMPLE WEIGHT (dry) 34.65

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 34.65 Sample Wet Weight 130.87

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	34.64584	100	WET+DISH 127.97
NO. 16	0.00	34.62584	100	DRY+DISH 113.00
NO. 40	0.02	34.62584	100	DISH 107.61
NO. 50	0.02	34.61584	100	WET 20.36
NO. 100	0.03	34.61584	100	DRY 5.39
NO. 200	0.03	34.61584	100	MC% 277.74

HYDROMETER

SAMPLE WEIGHT (WET) 130.87 SPECIFIC GRAVITY 2.79
 Wc 34.65 MENISCUS CORR. 8

CYLINDER NO. 2

CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	38	20	6	32	90	39	0.01307	9.9	0.029
5	37	20	6	31	87	38	0.01307	10.1	0.019
15	37	20	6	31	87	38	0.01307	10.1	0.011
30	36	20	6	30	84	37	0.01307	10.2	0.008
60	35	19	6	29	81	36	0.01323	10.4	0.006
250	30	21	6	24	67	31	0.01291	11.2	0.003
1440	22	18	7	15	42	23	0.01339	12.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project #	973376
Project	FMC Corp
Sample Loc.	Pond 11S, BH-1 @ 4.5 feet

TOTAL SAMPLE WEIGHT (dry) 16.72

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 16.72 Sample Wet Weight 78.20

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	16.722875	100	WET+DIS 127.17
NO. 16	0.00	16.702875	100	DRY+DISH 109.23
NO. 40	0.02	16.702875	100	DISH 104.35
NO. 50	0.02	16.632875	99	WET 22.82
NO. 100	0.09	16.632875	98	DRY 4.88
NO. 200	0.40	16.322875	98	MC% 367.62

HYDROMETER

SAMPLE WEIGHT (WET) 78.20 SPECIFIC GRAVITY 2.79
Wc 16.72 MENISCUS CORR. 1
CYLINDER NO. 14 L 8
CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	28	19	6	22	98	29	0.01323	11.5	0.032
5	21	19	6	15	87	22	0.01323	12.7	0.021
15	17	19	6	11	64	18	0.01323	13.3	0.012
30	17	20	6	11	64	18	0.01307	13.3	0.009
60	16	20	6	10	58	17	0.01307	13.5	0.006
250	15	22	6	9	52	16	0.01276	13.7	0.003
1440	13	21	6	7	41	14	0.01291	14.0	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 11S, BH-1 @ 10.5 feet

TOTAL SAMPLE WEIGHT (dry) 46.52

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 46.52 Sample Wet Weight 130.42

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	46.519061	100	WET+DIS 250.79
NO. 16	0.00	46.469061	100	DRY+DISH 159.15
NO. 40	0.05	46.469061	100	DISH 108.34
NO. 50	0.05	46.409061	100	WET 142.45
NO. 100	0.11	46.319061	100	DRY 50.81
NO. 200	0.20		100	MC% 180.36

HYDROMETER

SAMPLE WEIGHT (WET) 130.42 Wc 2.79
 CYLINDER NO. 12
 CYLINDER AREA 46.52 8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	52	22	55	47	98	53	0.01276	7.6	0.025
5	49	22	55	44	92	50	0.01276	8.1	0.016
15	37	22	55	32	67	38	0.01276	10.1	0.010
30	18	22	55	13	27	19	0.01276	13.2	0.008
60	12	22	55	7	15	13	0.01276	14.2	0.006
250	10	25	55	5	10	11	0.01232	14.5	0.003
1440	10	24	55	5	10	11	0.01246	14.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 11S, BH-1 @ 13.5 feet

TOTAL SAMPLE WEIGHT (dry) 28.75

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 28.75 Sample Wet Weight 70.96

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION	
				WET+DIS	DRY+DISH
NO. 10	0.00	28.750158	100	129.28	116.83
NO. 16	0.00	28.740158	100	108.35	108.35
NO. 40	0.01	28.740158	100	20.93	8.48
NO. 50	0.01	28.700158	100		
NO. 100	0.05	28.380158	99		
NO. 200	0.37			146.82	

HYDROMETER

SAMPLE WEIGHT (WET) 70.96 SPECIFIC GRAVITY 2.79
 Wc 28.75 MENISCUS CORR. 8
 CYLINDER NO. 12
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	38	19	6	32	99	39	0.01323	9.9	0.029
5	36	19	6	30	99	37	0.01323	10.2	0.019
15	30	19	6	24	81	31	0.01323	11.2	0.011
30	27	20	6	21	71	28	0.01307	11.7	0.008
60	25	20	6	19	64	26	0.01307	12.0	0.006
250	20	22	6	14	47	21	0.01276	12.9	0.003
1440	15	21	6	9	30	16	0.01291	13.7	0.001

SIEVE/HYDROMETER WORKSHEET

Project #	973376
Project	FMC Corp
Sample Loc.	Pond 12S, BH-1 @ 7.5 feet

TOTAL SAMPLE WEIGHT (dry)

31.59

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 31.59 Sample Wet Weight 128.41

SIEVE SIZE	Weight	Weight	% PASSING	MOISTURE CORRECTION	
	Retained	Passing		WET+DISH	DRY+DISH
NO. 10	0.00	31.59121	100	131.25	109.00
NO. 16	0.00	31.58121	100	101.74	99.51
NO. 40	0.01	31.58121	100	29.51	7.26
NO. 50	0.01	31.55121	100		
NO. 100	0.04	31.55121	99		
NO. 200	0.21	31.38121		306.47	

HYDROMETER

SAMPLE WEIGHT (WET) 128.41 SPECIFIC GRAVITY 2.79
Wc 31.59 MENISCUS CORR. 8

CYLINDER NO. 2
CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	46	19	6	40	123	47	0.01323	8.6	0.027
5	42	19	6	36	111	43	0.01323	9.2	0.018
15	35	19	6	29	89	36	0.01323	10.4	0.011
30	31	20	6	25	77	32	0.01307	11.0	0.008
60	28	20	6	22	68	29	0.01307	11.5	0.006
250	23	23	6	17	52	24	0.01261	12.4	0.003
1440	16	21	7	9	28	17	0.01291	13.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-1 @ 10.5 feet

TOTAL SAMPLE WEIGHT (dry)

52.77

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 52.77 Sample Wet Weight 132.58

SIEVE SIZE	Weight	Weight	% PASSING	MOISTURE CORRECTION	
	Retained	Passing		WET+DISH	DRY+DISH
NO. 10	0.02	52.754563	100	242.64	
NO. 16	0.02	52.714563	100	157.70	
NO. 40	0.06	52.714563	100	101.53	
NO. 50	0.06	52.714563	100	141.11	
NO. 100	0.14	52.634563	100	56.17	
NO. 200	0.24	52.534563	100	151.22	

HYDROMETER

SAMPLE WEIGHT (WET) 132.58 SPECIFIC GRAVITY 2.79
 Wc 52.79 MENISCUS CORR. 1 8
 CYLINDER NO. 13
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	53	22	5	48	88	54	0.01276	7.4	0.025
5	46	22	5	41	75	47	0.01276	8.6	0.017
15	31	22	5	26	48	32	0.01276	11.0	0.011
30	28	22	5	23	42	29	0.01276	11.5	0.008
60	24	23	5	19	35	25	0.01261	12.2	0.006
250	18	25	5	13	24	19	0.01232	13.2	0.003
1440	14	24	5	9	17	15	0.01246	13.8	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-2 @ 7.5 feet

TOTAL SAMPLE WEIGHT (dry) 67.48

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 67.48 Sample Wet Weight 130.07

SIEVE SIZE	Weight Retained	Weight Passing	MOISTURE CORRECTION		
			% PASSING	WET+DISH	DRY+DISH
NO. 10	3.17	64.312695	95	130.47	
NO. 16	3.17	51.332695	95	118.58	
NO. 40	16.15	51.332695	76	DISH 105.76	
NO. 50	16.15	45.522695	76	WET 24.71	
NO. 100	21.96	45.522695	67	DRY 12.82	
NO. 200	27.50	39.982695	59	MC% 92.75	

HYDROMETER

SAMPLE WEIGHT (WET) 130.07 SPECIFIC GRAVITY 2.79
 Wc 70.81 MENISCUS CORR. 1

CYLINDER NO.
 CYLINDER AREA

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	17	19	16	11	15	18	0.01323	13.3	0.034
5	13	19	16	7	10	14	0.01323	14.0	0.022
15	12	19	16	6	8	13	0.01323	14.2	0.013
30	11	19	16	5	7	12	0.01323	14.3	0.009
60	10	20	16	4	5	11	0.01307	14.5	0.006
250	10	22	16	4	5	11	0.01276	14.5	0.003
1440	10	21	16	4	5	11	0.01291	14.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-2 @ 13.5 feet

TOTAL SAMPLE WEIGHT (dry) 33.65

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 33.65 Sample Wet Weight 130.97

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	33.649723	100	WET+DISH 129.58
NO. 16	0.00	33.639723	100	DRY+DISH 111.88
NO. 40	0.01	33.639723	100	DISH 105.76
NO. 50	0.01	33.639723	100	WET 23.82
NO. 100	0.07	33.579723	100	DRY 6.12
NO. 200	0.31	33.339723	99	MC% 289.22

HYDROMETER

SAMPLE WEIGHT (WET) 130.97 SPECIFIC GRAVITY 2.79
 Wc 33.65 MENISCUS CORR. 8
 CYLINDER NO. 13
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	52	19	6	46	99	53	0.01323	7.6	0.026
5	44	19	6	38	99	45	0.01323	8.9	0.018
15	34	19	6	28	81	35	0.01323	10.6	0.011
30	30	19	6	24	69	31	0.01323	11.2	0.008
60	27	20	6	21	61	28	0.01307	11.7	0.006
250	20	22	6	14	40	21	0.01276	12.9	0.003
1440	12	21	6	6	17	13	0.01291	14.2	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-2 @ 18.5 feet

TOTAL SAMPLE WEIGHT (dry) 40.63

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0.79	98

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 40.63 Sample Wet Weight 106.62

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	1.15	39.482076	97	WET+DISH 131.74
NO. 16	1.15	39.462076	97	DRY+DISH 117.01
NO. 40	1.17	39.462076	97	DISH 107.94
NO. 50	1.17	39.462076	97	WET 23.80
NO. 100	1.19	39.442076	97	DRY 9.07
NO. 200	1.21	39.422076	97	MC% 162.40

HYDROMETER

SAMPLE WEIGHT (WET) 106.62 SPECIFIC GRAVITY 2.79
 Wc 41.82 MENISCUS CORR. 8
 14 1
 CYLINDER NO. CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	43	21	6	37	86	44	0.01291	9.1	0.028
5	42	21	6	36	84	43	0.01291	9.2	0.018
15	42	21	6	36	84	43	0.01291	9.2	0.010
30	41	20	6	35	81	42	0.01307	9.4	0.007
60	40	20	6	34	79	41	0.01307	9.6	0.005
250	37	23	6	31	72	38	0.01261	10.1	0.003
1440	23	19	7	16	37	24	0.01323	12.4	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-3 @ 7.8 feet

TOTAL SAMPLE WEIGHT (dry) 17.23

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 17.23 Sample Wet Weight 70.57

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.00	17.231874	100	WET+DISH 131.21
NO. 16	0.00	17.221874	100	DRY+DISH 112.70
NO. 40	0.01	17.221874	100	DISH 106.72
NO. 50	0.01	17.211874	100	WET 24.49
NO. 100	0.02	17.211874	100	DRY 5.98
NO. 200	0.04	17.191874	100	MC% 309.53

HYDROMETER

SAMPLE WEIGHT (WET) 70.57 SPECIFIC GRAVITY 2.79 8
 Wc 17.23 MENISCUS CORR. 1

CYLINDER NO. 1
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L (mm)	DIAMETER (mm)
2	28	21	6	22	100	29	0.01291	11.5	0.031
5	26	21	6	20	100	27	0.01291	11.9	0.020
15	23	21	6	17	96	24	0.01291	12.4	0.012
30	22	20	6	16	90	23	0.01307	12.5	0.008
60	20	20	6	14	79	21	0.01307	12.9	0.006
250	16	23	6	10	56	17	0.01261	13.5	0.003
1440	14	19	7	7	39	15	0.01323	13.8	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-3 @ 16.8 feet

TOTAL SAMPLE WEIGHT (dry) 50.88

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 50.88 Sample Wet Weight 130.79

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO .10	0.00	50.88412	100	WET+DISH 251.05
NO. 16	0.00	50.87412	100	DRY+DISH 159.53
NO. 40	0.01	50.87412	100	DISH 101.25
NO. 50	0.01	50.86412	100	WET 149.80
NO. 100	0.02	50.86412	100	DRY 58.28
NO. 200	0.05	50.83412	100	MC% 157.04

HYDROMETER

SAMPLE WEIGHT (WET) 130.79 SPECIFIC GRAVITY 2.79
 Wc 50.88 MENISCUS CORR. 1 8

CYLINDER NO. 1
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	56	22	5	51	97	57	0.01276	6.9	0.024
5	54	22	5	49	93	55	0.01276	7.3	0.015
15	49	22	5	44	84	50	0.01276	8.1	0.009
30	44	22	5	39	74	45	0.01276	8.9	0.007
60	39	23	5	34	65	40	0.01261	9.7	0.005
250	29	25	5	24	46	30	0.01232	11.4	0.003
1440	16	24	5	11	21	17	0.01246	13.5	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 12S, BH-3 @ 18.5 feet

TOTAL SAMPLE WEIGHT (dry)

49.24

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0	100

PORTION -NO. 4

SAMPLE WEIGHT (DRY) 49.24 Sample Wet Weight 130.99

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO .10	0.00	49.241941	100	WET+DISH 130.03
NO. 16	0.00	49.231941	100	DRY+DISH 112.25
NO. 40	0.01	49.231941	100	DISH 101.54
NO. 50	0.01	49.231941	100	WET 28.49
NO. 100	0.01	49.231941	100	DRY 10.71
NO. 200	0.02	49.221941	100	MC% 166.01

HYDROMETER

SAMPLE WEIGHT (WET) 130.99 SPECIFIC GRAVITY 2.79 8
 Wc 49.24 MENISCUS CORR. 1

CYLINDER NO. 12
 CYLINDER AREA 27.8

ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	52	21	6	46	91	53	0.01291	7.6	0.025
5	50	21	6	44	87	51	0.01291	7.9	0.016
15	47	21	6	41	81	48	0.01291	8.4	0.010
30	43	21	6	37	73	44	0.01291	9.1	0.007
60	39	20	6	33	65	40	0.01307	9.7	0.005
250	31	22	6	25	49	32	0.01276	11.0	0.003
1440	19	19	7	12	24	20	0.01323	13.0	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 13S, BH-2 @ 17.8 feet

TOTAL SAMPLE WEIGHT (dry) 38.65

PORTION + NO. 4

SIEVE SIZE	WEIGHT RETAINED	PERCENT PASSING
5"	0	100
3"	0	100
1-1/2"	0	100
3/4"	0	100
3/8"	0	100
NO. 4	0.45	99

PORTION -NO. 4

SIEVE SIZE	Weight Retained	Weight Passing	% PASSING	MOISTURE CORRECTION
NO. 10	0.45	38.204109	99	WET+DISH 129.99
NO. 16	0.45	38.204109	99	DRY+DISH 112.92
NO. 40	0.45	38.204109	99	DISH 105.75
NO. 50	0.45	38.204109	99	WET 24.24
NO. 100	0.47	38.184109	99	DRY 7.17
NO. 200	0.58	38.074109	98	MC% 238.08

HYDROMETER

SAMPLE WEIGHT (WET)	Wc	130.68	SPECIFIC GRAVITY	2.79	8				
CYLINDER NO.		2	MENISCUS CORR.	1					
CYLINDER AREA		27.8							
ELAPSED TIME (MINUTES)	HYDROMETER READING	TEMP.	STD HYD READING	CORR. HYD READING	PERCENT FINER	MENISCUS CORR. HYD	K	L	DIAMETER (mm)
2	40	21	6	34	84	41	0.01291	9.6	0.028
5	39	21	6	33	82	40	0.01291	9.7	0.018
15	38	20	6	32	79	39	0.01307	9.9	0.011
30	38	20	6	32	79	39	0.01307	9.9	0.008
60	38	20	6	32	79	39	0.01307	9.9	0.005
250	35	23	6	29	72	36	0.01261	10.4	0.003
1440	26	19	7	19	47	27	0.01323	11.9	0.001

SIEVE/HYDROMETER WORKSHEET

Project # 973376
 Project FMC Corp
 Sample Loc. Pond 13S BH-3 @ 17'

TOTAL SAMPLE WEIGHT (dry) 23.21

PORTION + NO. 4

SIEVE SIZE

5"	0
3"	0
1-1/2"	0
3/4"	0
3/8"	0
NO. 4	0

WEIGHT RETAINED

0
0
0
0
0

PERCENT PASSING

100
100
100
100
100

PORTION -NO. 4

SAMPLE WEIGHT (DRY)

23.21

Sample Wet Weight

71.72

Weight
Retained

0.03
0.03
0.12
0.12
0.20
0.49

Weight
Passing

23.182147
23.092147
23.092147
23.012147
22.722147

% PASSING

100
100
99
99
99
98

MOISTURE CORRECTION

WET+DISH	130.39
DRY+DISH	115.49
DISH	108.36
WET	22.03
DRY	7.13
MC%	208.98

HYDROMETER

SAMPLE WEIGHT (WET)

71.72

Wc 23.24

SPECIFIC GRAVITY
MENISCUS CORR.

2.79
1

8

CYLINDER NO.

13

CYLINDER AREA

27.8

ELAPSED TIME
(MINUTES)

HYDROMETER TEMP.

STD HYD
READING

CORR. HYD
READING

PERCENT
FINER

MENISCUS
CORR. HYD

K

L

DIAMETER
(mm)

2
5
15
30
60
250
1440

27
25
24
24
23
22
18

21
21
21
20
20

6
6
6
6
7

21
19
18
17
16

88
79
75
75
67

28
26
25
25
19

0.01291
0.01291
0.01291
0.01307
0.01307
0.01261
0.01323

APPENDIX E

CONSOLIDATION TESTS DATA - CALCULATIONS

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 8E, BH-1 @ 7 feet
Sample Ht.	1.625 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.012 (cu-ft)
Phos Cont.	0.0063 (%)
Init. M.C.	232.54 (%)
Init. M.C. (corr)	232.47 (%)
Final M.C.	108.97 (%)
Final M.C. (corr)	108.95 (%)
Dry Wt. of Soil/f	150.57 (g)
Dry Wt. of Soil/i	124.77 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	28
Phos. Wt. (g)	0.00
Dry Wt. (g)	8.42
Dry Wt. + Phos Wt. (g)	8.42
Water Wt. + Phos (g)	19.58
Water Wt. (g)	19.58
(final)	
Total Wet Wt. (g)	27.71
Phos. Wt. (g)	0.00
Dry Wt. (g)	13.26
Dry Wt. + Phos Wt. (g)	13.26
Water Wt. + Phos (g)	14.45
Water Wt. (g)	14.45

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density	Void Ratio (e)	Dry Density (pcf)
						(pcf)		
0.001	0.4132	0.0000	1.6250	0	5.203	28.06	6.486	23.26
0.0250	0.3503	0.0629	1.5621	3.87	4.963	29.19	6.196	24.19
0.0500	0.3234	0.0898	1.5352	5.53	4.861	29.71	6.072	24.62
0.1000	0.2848	0.1229	1.5021	7.56	4.734	30.36	5.920	25.16
0.2500	0.2036	0.1978	1.4272	12.17	4.448	31.95	5.575	26.48
0.5000	0.1663	0.2349	1.3901	14.46	4.307	32.81	5.404	27.19
1.0000	0.0317	0.3686	1.2564	22.68	3.796	36.30	4.788	30.08
2.0000	0.3154	0.4665	1.1585	28.71	3.423	39.37	4.337	32.62
4.0000	0.2150	0.5668	1.0582	34.88	3.040	43.10	3.875	35.71

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4132	0.0000	0.3503	0.0000	0.3179	0.0000	0.2785	0.0000
0.17	0.41	0.4128	-0.0004	0.3493	-0.0010	0.3167	-0.0012	0.2751	-0.0034
0.33	0.58	0.4124	-0.0008	0.3486	-0.0017	0.3161	-0.0018	0.2722	-0.0063
0.50	0.71	0.4119	-0.0013	0.3482	-0.0021	0.3157	-0.0022	0.2705	-0.0080
0.67	0.82	0.4114	-0.0018	0.3480	-0.0023	0.3152	-0.0027	0.2684	-0.0101
0.83	0.91	0.4111	-0.0021	0.3476	-0.0027	0.3146	-0.0033	0.2672	-0.0113
1.00	1.00	0.4107	-0.0025	0.3474	-0.0029	0.3146	-0.0033	0.2659	-0.0126
1.17	1.08	0.4104	-0.0028	0.3471	-0.0032	0.3138	-0.0041	0.2648	-0.0137
1.33	1.15	0.4101	-0.0031	0.3469	-0.0034	0.3136	-0.0043	0.2633	-0.0152
1.50	1.22	0.4098	-0.0034	0.3466	-0.0037	0.3134	-0.0045	0.2622	-0.0163
1.67	1.29	0.4093	-0.0039	0.3465	-0.0038	0.3128	-0.0051	0.2622	-0.0163
1.83	1.35	0.4091	-0.0041	0.3462	-0.0041	0.3127	-0.0052	0.2600	-0.0185
2.00	1.41	0.4088	-0.0044	0.3460	-0.0043	0.3123	-0.0056	0.2590	-0.0195
2.17	1.47	0.4085	-0.0047	0.3456	-0.0047	0.3120	-0.0059	0.2582	-0.0203
2.33	1.53	0.4081	-0.0051	0.3455	-0.0048	0.3120	-0.0059	0.2570	-0.0215
2.50	1.58	0.4079	-0.0053	0.3452	-0.0051	0.3114	-0.0065	0.2562	-0.0223
2.67	1.63	0.4076	-0.0056	0.3451	-0.0052	0.3111	-0.0068	0.2562	-0.0223
2.83	1.68	0.4072	-0.0060	0.3450	-0.0053	0.3109	-0.0070	0.2562	-0.0223
3.00	1.73	0.4070	-0.0062	0.3448	-0.0055	0.3105	-0.0074	0.2537	-0.0248
3.17	1.78	0.4068	-0.0064	0.3445	-0.0058	0.3103	-0.0076	0.2532	-0.0253
3.33	1.83	0.4064	-0.0068	0.3443	-0.0060	0.3099	-0.0080	0.2522	-0.0263
3.50	1.87	0.4063	-0.0069	0.3443	-0.0060	0.3097	-0.0082	0.2515	-0.0270
3.67	1.91	0.4059	-0.0073	0.3441	-0.0062	0.3094	-0.0085	0.2507	-0.0278
3.83	1.96	0.4056	-0.0076	0.3438	-0.0065	0.3091	-0.0088	0.2502	-0.0283
4.00	2.00	0.4053	-0.0079	0.3438	-0.0065	0.3089	-0.0090	0.2500	-0.0285
4.17	2.04	0.4051	-0.0081	0.3436	-0.0067	0.3087	-0.0092	0.2487	-0.0298
4.33	2.08	0.4048	-0.0084	0.3435	-0.0068	0.3084	-0.0095	0.2478	-0.0307
4.50	2.12	0.4046	-0.0086	0.3435	-0.0068	0.3082	-0.0097	0.2473	-0.0312
4.67	2.16	0.4043	-0.0089	0.3433	-0.0070	0.3079	-0.0100	0.2464	-0.0321
4.83	2.20	0.4041	-0.0091	0.3432	-0.0071	0.3078	-0.0101	0.2459	-0.0326
5.00	2.24	0.4037	-0.0095	0.3430	-0.0073	0.3075	-0.0104	0.2451	-0.0334
5.17	2.27	0.4035	-0.0097	0.3428	-0.0075	0.3073	-0.0106	0.2446	-0.0339
5.33	2.31	0.4032	-0.0100	0.3428	-0.0075	0.3071	-0.0108	0.2438	-0.0347
5.50	2.35	0.4031	-0.0101	0.3425	-0.0078	0.3069	-0.0110	0.2433	-0.0352
5.67	2.38	0.4027	-0.0105	0.3425	-0.0078	0.3065	-0.0114	0.2426	-0.0359
5.83	2.42	0.4025	-0.0107	0.3422	-0.0081	0.3064	-0.0115	0.2420	-0.0365
6.00	2.45	0.4023	-0.0109	0.3420	-0.0083	0.3059	-0.0120	0.2414	-0.0371
6.17	2.48	0.4021	-0.0111	0.3419	-0.0084	0.3058	-0.0121	0.2409	-0.0376
6.33	2.52	0.4017	-0.0115	0.3417	-0.0086	0.3055	-0.0124	0.2402	-0.0383
6.50	2.55	0.4017	-0.0115	0.3414	-0.0089	0.3053	-0.0126	0.2397	-0.0388
6.67	2.58	0.4014	-0.0118	0.3413	-0.0090	0.3051	-0.0128	0.2392	-0.0393
6.83	2.61	0.4012	-0.0120	0.3411	-0.0092	0.3049	-0.0130	0.2387	-0.0398
7.00	2.65	0.4009	-0.0123	0.3410	-0.0093	0.3048	-0.0131	0.2381	-0.0404
7.17	2.68	0.4007	-0.0125	0.3408	-0.0095	0.3046	-0.0133	0.2377	-0.0408
7.33	2.71	0.4004	-0.0128	0.3407	-0.0096	0.3044	-0.0135	0.2371	-0.0414
7.50	2.74	0.4002	-0.0130	0.3406	-0.0097	0.3043	-0.0136	0.2366	-0.0419
7.67	2.77	0.4000	-0.0132	0.3405	-0.0098	0.3042	-0.0137	0.2360	-0.0425
7.83	2.80	0.3998	-0.0134	0.3403	-0.0100	0.3041	-0.0138	0.2357	-0.0428
8.00	2.83	0.3995	-0.0137	0.3403	-0.0100	0.3039	-0.0140	0.2351	-0.0434
8.17	2.86	0.3993	-0.0139	0.3400	-0.0103	0.3037	-0.0142	0.2348	-0.0437
8.33	2.89	0.3991	-0.0141	0.3397	-0.0106	0.3035	-0.0144	0.2342	-0.0443
8.50	2.92	0.3989	-0.0143	0.3396	-0.0107	0.3034	-0.0145	0.2339	-0.0446
8.67	2.94	0.3986	-0.0146	0.3396	-0.0107	0.3033	-0.0146	0.2334	-0.0451
8.83	2.97	0.3985	-0.0147	0.3395	-0.0108	0.3032	-0.0147	0.2331	-0.0454
9.00	3.00	0.3982	-0.0150	0.3393	-0.0110	0.3030	-0.0149	0.2326	-0.0459
9.17	3.03	0.3980	-0.0152	0.3388	-0.0115	0.3028	-0.0151	0.2323	-0.0462
9.33	3.06	0.3978	-0.0154	0.3386	-0.0117	0.3027	-0.0152	0.2318	-0.0467
9.50	3.08	0.3976	-0.0156	0.3385	-0.0118	0.3026	-0.0153	0.2315	-0.0470
9.67	3.11	0.3972	-0.0160	0.3383	-0.0120	0.3025	-0.0154	0.2310	-0.0475
9.83	3.14	0.3971	-0.0161	0.3381	-0.0122	0.3024	-0.0155	0.2308	-0.0477
10.00	3.16	0.3969	-0.0163	0.3380	-0.0123	0.3022	-0.0157	0.2303	-0.0482
10.17	3.19	0.3967	-0.0165	0.3379	-0.0124	0.3021	-0.0158	0.2300	-0.0485
10.33	3.21	0.3964	-0.0168	0.3378	-0.0125	0.3019	-0.0160	0.2296	-0.0489
10.50	3.24	0.3962	-0.0170	0.3375	-0.0128	0.3018	-0.0161	0.2294	-0.0491
10.67	3.27	0.3961	-0.0171	0.3375	-0.0128	0.3017	-0.0162	0.2289	-0.0496

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.3959	-0.0173	0.3373	-0.0130	0.3016	-0.0163	0.2287	-0.0498
11.00	3.32	0.3956	-0.0176	0.3372	-0.0131	0.3015	-0.0164	0.2283	-0.0502
11.17	3.34	0.3954	-0.0178	0.3371	-0.0132	0.3014	-0.0165	0.2280	-0.0505
11.33	3.37	0.3953	-0.0179	0.3369	-0.0134	0.3012	-0.0167	0.2277	-0.0508
11.50	3.39	0.3951	-0.0181	0.3369	-0.0134	0.3011	-0.0168	0.2275	-0.0510
11.67	3.42	0.3948	-0.0184	0.3366	-0.0137	0.3010	-0.0169	0.2271	-0.0514
11.83	3.44	0.3946	-0.0186	0.3365	-0.0138	0.3009	-0.0170	0.2269	-0.0516
12.00	3.46	0.3945	-0.0187	0.3364	-0.0139	0.3008	-0.0171	0.2265	-0.0520
12.17	3.49	0.3943	-0.0189	0.3363	-0.0140	0.3007	-0.0172	0.2263	-0.0522
12.33	3.51	0.3940	-0.0192	0.3362	-0.0141	0.3005	-0.0174	0.2260	-0.0525
12.50	3.54	0.3939	-0.0193	0.3361	-0.0142	0.3004	-0.0175	0.2257	-0.0528
12.67	3.56	0.3936	-0.0196	0.3359	-0.0144	0.3003	-0.0176	0.2255	-0.0530
12.83	3.58	0.3935	-0.0197	0.3358	-0.0145	0.3002	-0.0177	0.2252	-0.0533
13.00	3.61	0.3932	-0.0200	0.3357	-0.0146	0.3002	-0.0177	0.2249	-0.0536
13.17	3.63	0.3931	-0.0201	0.3356	-0.0147	0.3000	-0.0179	0.2247	-0.0538
13.33	3.65	0.3929	-0.0203	0.3356	-0.0147	0.2999	-0.0180	0.2245	-0.0540
13.50	3.67	0.3927	-0.0205	0.3355	-0.0148	0.2998	-0.0181	0.2242	-0.0543
13.67	3.70	0.3925	-0.0207	0.3354	-0.0149	0.2997	-0.0182	0.2239	-0.0546
13.83	3.72	0.3923	-0.0209	0.3352	-0.0151	0.2996	-0.0183	0.2238	-0.0547
14.00	3.74	0.3922	-0.0210	0.3351	-0.0152	0.2994	-0.0185	0.2235	-0.0550
14.17	3.76	0.3920	-0.0212	0.3349	-0.0154	0.2994	-0.0185	0.2233	-0.0552
14.33	3.79	0.3917	-0.0215	0.3349	-0.0154	0.2993	-0.0186	0.2231	-0.0554
14.50	3.81	0.3915	-0.0217	0.3348	-0.0155	0.2992	-0.0187	0.2229	-0.0556
14.67	3.83	0.3914	-0.0218	0.3348	-0.0155	0.2991	-0.0188	0.2227	-0.0558
14.83	3.85	0.3913	-0.0219	0.3347	-0.0156	0.2990	-0.0189	0.2225	-0.0560
15.33	3.92	0.3905	-0.0227	0.3345	-0.0158	0.2987	-0.0192	0.2219	-0.0566
15.83	3.98	0.3880	-0.0252	0.3341	-0.0162	0.2985	-0.0194	0.2214	-0.0571
16.33	4.04	0.3860	-0.0272	0.3340	-0.0163	0.2982	-0.0197	0.2208	-0.0577
16.83	4.10	0.3696	-0.0436	0.3334	-0.0169	0.2979	-0.0200	0.2204	-0.0581
17.33	4.16	0.3774	-0.0358	0.3333	-0.0170	0.2975	-0.0204	0.2199	-0.0586
17.83	4.22	0.3771	-0.0361	0.3331	-0.0172	0.2973	-0.0206	0.2194	-0.0591
18.33	4.28	0.3765	-0.0367	0.3326	-0.0177	0.2971	-0.0208	0.2190	-0.0595
18.83	4.34	0.3757	-0.0375	0.3324	-0.0179	0.2969	-0.0210	0.2185	-0.0600
19.33	4.40	0.3751	-0.0381	0.3322	-0.0181	0.2966	-0.0213	0.2182	-0.0603
19.83	4.45	0.3749	-0.0383	0.3320	-0.0183	0.2964	-0.0215	0.2178	-0.0607
20.33	4.51	0.3745	-0.0387	0.3317	-0.0186	0.2963	-0.0216	0.2175	-0.0610
20.83	4.56	0.3741	-0.0391	0.3315	-0.0188	0.2961	-0.0218	0.2171	-0.0614
21.33	4.62	0.3737	-0.0395	0.3313	-0.0190	0.2959	-0.0220	0.2168	-0.0617
21.83	4.67	0.3733	-0.0399	0.3310	-0.0193	0.2957	-0.0222	0.2165	-0.0620
22.33	4.73	0.3728	-0.0404	0.3309	-0.0194	0.2955	-0.0224	0.2161	-0.0624
22.83	4.78	0.3724	-0.0408	0.3309	-0.0194	0.2954	-0.0225	0.2160	-0.0625
23.33	4.83	0.3720	-0.0412	0.3307	-0.0196	0.2952	-0.0227	0.2157	-0.0628
23.83	4.88	0.3716	-0.0416	0.3306	-0.0197	0.2950	-0.0229	0.2154	-0.0631
24.33	4.93	0.3712	-0.0420	0.3306	-0.0197	0.2949	-0.0230	0.2152	-0.0633
24.83	4.98	0.3708	-0.0424	0.3305	-0.0198	0.2947	-0.0232	0.2149	-0.0636
25.33	5.03	0.3703	-0.0429	0.3304	-0.0199	0.2946	-0.0233	0.2147	-0.0638
25.83	5.08	0.3699	-0.0433	0.3303	-0.0200	0.2944	-0.0235	0.2145	-0.0640
26.33	5.13	0.3695	-0.0437	0.3302	-0.0201	0.2943	-0.0236	0.2143	-0.0642
26.83	5.18	0.3692	-0.0440	0.3301	-0.0202	0.2941	-0.0238	0.2141	-0.0644
27.33	5.23	0.3688	-0.0444	0.3301	-0.0202	0.2939	-0.0240	0.2139	-0.0646
27.83	5.28	0.3684	-0.0448	0.3301	-0.0202	0.2939	-0.0240	0.2138	-0.0647
28.33	5.32	0.3681	-0.0451	0.3300	-0.0203	0.2937	-0.0242	0.2136	-0.0649
28.83	5.37	0.3678	-0.0454	0.3299	-0.0204	0.2935	-0.0244	0.2135	-0.0650
29.33	5.42	0.3674	-0.0458	0.3298	-0.0205	0.2934	-0.0245	0.2133	-0.0652
29.83	5.46	0.3670	-0.0462	0.3298	-0.0205	0.2933	-0.0246	0.2132	-0.0653
30.33	5.51	0.3667	-0.0465	0.3297	-0.0206	0.2932	-0.0247	0.2131	-0.0654
30.83	5.55	0.3663	-0.0469	0.3296	-0.0207	0.2932	-0.0247	0.2129	-0.0656
31.33	5.60	0.3660	-0.0472	0.3295	-0.0208	0.2930	-0.0249	0.2129	-0.0656
31.83	5.64	0.3657	-0.0475	0.3295	-0.0208	0.2929	-0.0250	0.2128	-0.0657
32.33	5.69	0.3655	-0.0477	0.3294	-0.0209	0.2928	-0.0251	0.2126	-0.0659
32.83	5.73	0.3651	-0.0481	0.3294	-0.0209	0.2927	-0.0252	0.2125	-0.0660
33.33	5.77	0.3648	-0.0484	0.3293	-0.0210	0.2926	-0.0253	0.2124	-0.0661
33.83	5.82	0.3646	-0.0486	0.3293	-0.0210	0.2925	-0.0254	0.2123	-0.0662
34.33	5.86	0.3642	-0.0490	0.3293	-0.0210	0.2924	-0.0255	0.2122	-0.0663
34.83	5.90	0.3639	-0.0493	0.3292	-0.0211	0.2924	-0.0255	0.2121	-0.0664

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3637	-0.0495	0.3292	-0.0211	0.2923	-0.0256	0.2121	-0.0664
35.83	5.99	0.3634	-0.0498	0.3292	-0.0211	0.2922	-0.0257	0.2120	-0.0665
36.33	6.03	0.3632	-0.0500	0.3291	-0.0212	0.2921	-0.0258	0.2119	-0.0666
36.83	6.07	0.3629	-0.0503	0.3290	-0.0213	0.2920	-0.0259	0.2118	-0.0667
37.33	6.11	0.3626	-0.0506	0.3290	-0.0213	0.2919	-0.0260	0.2117	-0.0668
37.83	6.15	0.3624	-0.0508	0.3289	-0.0214	0.2919	-0.0260	0.2117	-0.0668
38.33	6.19	0.3622	-0.0510	0.3289	-0.0214	0.2918	-0.0261	0.2116	-0.0669
38.83	6.23	0.3619	-0.0513	0.3288	-0.0215	0.2917	-0.0262	0.2115	-0.0670
39.33	6.27	0.3617	-0.0515	0.3288	-0.0215	0.2916	-0.0263	0.2115	-0.0670
39.83	6.31	0.3615	-0.0517	0.3287	-0.0216	0.2916	-0.0263	0.2114	-0.0671
40.33	6.35	0.3613	-0.0519	0.3287	-0.0216	0.2916	-0.0263	0.2114	-0.0671
40.83	6.39	0.3610	-0.0522	0.3287	-0.0216	0.2915	-0.0264	0.2113	-0.0672
41.33	6.43	0.3607	-0.0525	0.3286	-0.0217	0.2914	-0.0265	0.2113	-0.0672
41.83	6.47	0.3603	-0.0529	0.3286	-0.0217	0.2914	-0.0265	0.2112	-0.0673
42.33	6.51	0.3601	-0.0531	0.3285	-0.0218	0.2913	-0.0266	0.2111	-0.0674
42.83	6.54	0.3600	-0.0532	0.3285	-0.0218	0.2912	-0.0267	0.2111	-0.0674
43.33	6.58	0.3598	-0.0534	0.3285	-0.0218	0.2911	-0.0268	0.2110	-0.0675
43.83	6.62	0.3594	-0.0538	0.3285	-0.0218	0.2911	-0.0268	0.2110	-0.0675
44.33	6.66	0.3593	-0.0539	0.3285	-0.0218	0.2910	-0.0269	0.2109	-0.0676
44.83	6.70	0.3591	-0.0541	0.3284	-0.0219	0.2909	-0.0270	0.2109	-0.0676
45.33	6.73	0.3589	-0.0543	0.3284	-0.0219	0.2909	-0.0270	0.2108	-0.0677
45.83	6.77	0.3587	-0.0545	0.3284	-0.0219	0.2908	-0.0271	0.2107	-0.0678
46.33	6.81	0.3585	-0.0547	0.3284	-0.0219	0.2908	-0.0271	0.2107	-0.0678
46.83	6.84	0.3581	-0.0551	0.3283	-0.0220	0.2908	-0.0271	0.2107	-0.0678
47.33	6.88	0.3579	-0.0553	0.3283	-0.0220	0.2907	-0.0272	0.2106	-0.0679
47.83	6.92	0.3576	-0.0556	0.3283	-0.0220	0.2907	-0.0272	0.2106	-0.0679
48.33	6.95	0.3575	-0.0557	0.3283	-0.0220	0.2906	-0.0273	0.2106	-0.0679
48.83	6.99	0.3571	-0.0561	0.3282	-0.0221	0.2906	-0.0273	0.2106	-0.0679
49.33	7.02	0.3570	-0.0562	0.3282	-0.0221	0.2905	-0.0274	0.2105	-0.0680
49.83	7.06	0.3568	-0.0564	0.3282	-0.0221	0.2905	-0.0274	0.2105	-0.0680
50.33	7.09	0.3566	-0.0566	0.3281	-0.0222	0.2904	-0.0275	0.2104	-0.0681
50.83	7.13	0.3563	-0.0569	0.3281	-0.0222	0.2903	-0.0276	0.2104	-0.0681
51.33	7.16	0.3561	-0.0571	0.3281	-0.0222	0.2903	-0.0276	0.2103	-0.0682
51.83	7.20	0.3559	-0.0573	0.3281	-0.0222	0.2903	-0.0276	0.2103	-0.0682
52.33	7.23	0.3558	-0.0574	0.3280	-0.0223	0.2902	-0.0277	0.2103	-0.0682
52.83	7.27	0.3555	-0.0577	0.3280	-0.0223	0.2901	-0.0278	0.2101	-0.0684
53.33	7.30	0.3554	-0.0578	0.3280	-0.0223	0.2901	-0.0278	0.2101	-0.0684
53.83	7.34	0.3553	-0.0579	0.3280	-0.0223	0.2901	-0.0278	0.2100	-0.0685
54.33	7.37	0.3553	-0.0579	0.3279	-0.0224	0.2900	-0.0279	0.2100	-0.0685
54.83	7.40	0.3553	-0.0579	0.3279	-0.0224	0.2900	-0.0279	0.2100	-0.0685
55.33	7.44	0.3552	-0.0580	0.3279	-0.0224	0.2900	-0.0279	0.2099	-0.0686
55.83	7.47	0.3551	-0.0581	0.3279	-0.0224	0.2900	-0.0279	0.2099	-0.0686
56.33	7.51	0.3551	-0.0581	0.3278	-0.0225	0.2899	-0.0280	0.2098	-0.0687
56.83	7.54	0.3549	-0.0583	0.3278	-0.0225	0.2899	-0.0280	0.2098	-0.0687
57.33	7.57	0.3549	-0.0583	0.3278	-0.0225	0.2898	-0.0281	0.2098	-0.0687
57.83	7.60	0.3548	-0.0584	0.3278	-0.0225	0.2898	-0.0281	0.2098	-0.0687
58.33	7.64	0.3547	-0.0585	0.3278	-0.0225	0.2898	-0.0281	0.2098	-0.0687
58.83	7.67	0.3546	-0.0586	0.3278	-0.0225	0.2897	-0.0282	0.2098	-0.0687
59.33	7.70	0.3545	-0.0587	0.3278	-0.0225	0.2897	-0.0282	0.2097	-0.0688
59.83	7.74	0.3545	-0.0587	0.3278	-0.0225	0.2897	-0.0282	0.2097	-0.0688
60.83	7.80	0.3544	-0.0588	0.3277	-0.0226	0.2896	-0.0283	0.2097	-0.0688
61.83	7.86	0.3543	-0.0589	0.3277	-0.0226	0.2895	-0.0284	0.2096	-0.0689
62.83	7.93	0.3542	-0.0590	0.3277	-0.0226	0.2894	-0.0285	0.2096	-0.0689
63.83	7.99	0.3541	-0.0591	0.3276	-0.0227	0.2894	-0.0285	0.2093	-0.0692
64.83	8.05	0.3539	-0.0593	0.3275	-0.0228	0.2892	-0.0287	0.2093	-0.0692
65.83	8.11	0.3537	-0.0595	0.3275	-0.0228	0.2892	-0.0287	0.2093	-0.0692
66.83	8.18	0.3535	-0.0597	0.3275	-0.0228	0.2892	-0.0287	0.2093	-0.0692
67.83	8.24	0.3535	-0.0597	0.3274	-0.0229	0.2892	-0.0287	0.2092	-0.0693
68.83	8.30	0.3534	-0.0598	0.3274	-0.0229	0.2891	-0.0288	0.2092	-0.0693
69.83	8.36	0.3534	-0.0598	0.3274	-0.0229	0.2890	-0.0289	0.2091	-0.0694
70.83	8.42	0.3533	-0.0599	0.3274	-0.0229	0.2890	-0.0289	0.2091	-0.0694
71.83	8.48	0.3532	-0.0600	0.3273	-0.0230	0.2889	-0.0290	0.2090	-0.0695
72.83	8.53	0.3531	-0.0601	0.3273	-0.0230	0.2889	-0.0290	0.2090	-0.0695
73.83	8.59	0.3531	-0.0601	0.3273	-0.0230	0.2888	-0.0291	0.2090	-0.0695
74.83	8.65	0.3530	-0.0602	0.3273	-0.0230	0.2887	-0.0292	0.2090	-0.0695

Sample: Pond 8E, BH-1 @ 7 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.3529	-0.0603	0.3272	-0.0231	0.2887	-0.0292	0.2090	-0.0695
76.83	8.77	0.3529	-0.0603	0.3272	-0.0231	0.2886	-0.0293	0.2089	-0.0696
77.83	8.82	0.3529	-0.0603	0.3272	-0.0231	0.2886	-0.0293	0.2089	-0.0696
78.83	8.88	0.3529	-0.0603	0.3272	-0.0231	0.2885	-0.0294	0.2089	-0.0696
79.83	8.93	0.3529	-0.0603	0.3271	-0.0232	0.2885	-0.0294	0.2088	-0.0697
80.83	8.99	0.3528	-0.0604	0.3271	-0.0232	0.2884	-0.0295	0.2088	-0.0697
81.83	9.05	0.3527	-0.0605	0.3270	-0.0233	0.2884	-0.0295	0.2088	-0.0697
82.83	9.10	0.3527	-0.0605	0.3270	-0.0233	0.2884	-0.0295	0.2087	-0.0698
83.83	9.16	0.3527	-0.0605	0.3270	-0.0233	0.2884	-0.0295	0.2087	-0.0698
84.83	9.21	0.3526	-0.0606	0.3270	-0.0233	0.2883	-0.0296	0.2087	-0.0698
85.83	9.26	0.3526	-0.0606	0.3270	-0.0233	0.2883	-0.0296	0.2086	-0.0699
86.83	9.32	0.3525	-0.0607	0.3269	-0.0234	0.2883	-0.0296	0.2086	-0.0699
87.83	9.37	0.3524	-0.0608	0.3269	-0.0234	0.2882	-0.0297	0.2086	-0.0699
88.83	9.43	0.3522	-0.0610	0.3269	-0.0234	0.2882	-0.0297	0.2085	-0.0700
89.83	9.48	0.3520	-0.0612	0.3269	-0.0234	0.2881	-0.0298	0.2085	-0.0700
90.83	9.53	0.3517	-0.0615	0.3268	-0.0235	0.2881	-0.0298	0.2085	-0.0700
91.83	9.58	0.3516	-0.0616	0.3268	-0.0235	0.2881	-0.0298	0.2084	-0.0701
92.83	9.64	0.3514	-0.0618	0.3268	-0.0235	0.2880	-0.0299	0.2084	-0.0701
93.83	9.69	0.3514	-0.0618	0.3268	-0.0235	0.2880	-0.0299	0.2084	-0.0701
94.83	9.74	0.3514	-0.0618	0.3268	-0.0235	0.2879	-0.0300	0.2084	-0.0701
95.83	9.79	0.3514	-0.0618	0.3268	-0.0235	0.2879	-0.0300	0.2083	-0.0702
96.83	9.84	0.3514	-0.0618	0.3267	-0.0236	0.2878	-0.0301	0.2083	-0.0702
97.83	9.89	0.3513	-0.0619	0.3267	-0.0236	0.2878	-0.0301	0.2082	-0.0703
98.83	9.94	0.3513	-0.0619	0.3267	-0.0236	0.2878	-0.0301	0.2082	-0.0703
99.83	9.99	0.3512	-0.0620	0.3267	-0.0236	0.2877	-0.0302	0.2082	-0.0703
100.83	10.04	0.3512	-0.0620	0.3266	-0.0237	0.2877	-0.0302	0.2082	-0.0703
101.83	10.09	0.3512	-0.0620	0.3266	-0.0237	0.2877	-0.0302	0.2082	-0.0703
102.83	10.14	0.3512	-0.0620	0.3266	-0.0237	0.2876	-0.0303	0.2082	-0.0703
103.83	10.19	0.3512	-0.0620	0.3266	-0.0237	0.2876	-0.0303	0.2082	-0.0703
104.83	10.24	0.3512	-0.0620	0.3265	-0.0238	0.2876	-0.0303	0.2082	-0.0703
105.83	10.29	0.3512	-0.0620	0.3266	-0.0237	0.2876	-0.0303	0.2082	-0.0703
106.83	10.34	0.3511	-0.0621	0.3266	-0.0237	0.2876	-0.0303	0.2082	-0.0703
107.83	10.38	0.3511	-0.0621	0.3265	-0.0238	0.2876	-0.0303	0.2082	-0.0703
108.83	10.43	0.3509	-0.0623	0.3265	-0.0238	0.2876	-0.0303	0.2081	-0.0704
109.83	10.48	0.3509	-0.0623	0.3265	-0.0238	0.2875	-0.0304	0.2081	-0.0704
110.83	10.53	0.3509	-0.0623	0.3265	-0.0238	0.2875	-0.0304	0.2081	-0.0704
111.83	10.58	0.3509	-0.0623	0.3265	-0.0238	0.2874	-0.0305	0.2081	-0.0704
112.83	10.62	0.3509	-0.0623	0.3264	-0.0239	0.2874	-0.0305	0.2081	-0.0704
113.83	10.67	0.3509	-0.0623	0.3264	-0.0239	0.2873	-0.0306	0.2080	-0.0705
114.83	10.72	0.3509	-0.0623	0.3264	-0.0239	0.2873	-0.0306	0.2080	-0.0705
115.83	10.76	0.3509	-0.0623	0.3264	-0.0239	0.2873	-0.0306	0.2080	-0.0705
116.83	10.81	0.3509	-0.0623	0.3263	-0.0240	0.2873	-0.0306	0.2080	-0.0705
117.83	10.86	0.3509	-0.0623	0.3263	-0.0240	0.2872	-0.0307	0.2080	-0.0705
118.83	10.90	0.3509	-0.0623	0.3262	-0.0241	0.2872	-0.0307	0.2079	-0.0706
119.83	10.95	0.3509	-0.0623	0.3262	-0.0241	0.2872	-0.0307	0.2079	-0.0706
129.83	11.39	0.3507	-0.0625	0.3262	-0.0241	0.2869	-0.0310	0.2075	-0.0710
139.83	11.83	0.3507	-0.0625	0.3262	-0.0241	0.2867	-0.0312	0.2074	-0.0711
149.83	12.24	0.3507	-0.0625	0.3259	-0.0244	0.2865	-0.0314	0.2073	-0.0712
159.83	12.64	0.3506	-0.0626	0.3259	-0.0244	0.2863	-0.0316	0.2072	-0.0713
169.83	13.03	0.3506	-0.0626	0.3258	-0.0245	0.2861	-0.0318	0.2069	-0.0716
179.83	13.41	0.3505	-0.0627	0.3258	-0.0245	0.2860	-0.0319	0.2068	-0.0717
189.83	13.78	0.3504	-0.0628	0.3257	-0.0246	0.2859	-0.0320	0.2068	-0.0717
199.83	14.14	0.3503	-0.0629	0.3254	-0.0249	0.2858	-0.0321	0.2067	-0.0718
209.83	14.49			0.3254	-0.0249	0.2857	-0.0322	0.2066	-0.0719
219.83	14.83			0.3254	-0.0249	0.2856	-0.0323	0.2066	-0.0719
229.83	15.16			0.3254	-0.0249	0.2854	-0.0325	0.2066	-0.0719
239.83	15.49			0.3254	-0.0249	0.2853	-0.0326	0.2065	-0.0720
249.83	15.81			0.3254	-0.0249	0.2850	-0.0329	0.2064	-0.0721
259.83	16.12			0.3253	-0.0250	0.2850	-0.0329	0.2063	-0.0722
269.83	16.43			0.3253	-0.0250	0.2850	-0.0329	0.2063	-0.0722
279.83	16.73			0.3252	-0.0251	0.2849	-0.0330	0.2062	-0.0723
289.83	17.02			0.3252	-0.0251	0.2848	-0.0331	0.2062	-0.0723
299.83	17.32			0.3251	-0.0252			0.2058	-0.0727
309.83	17.60			0.3251	-0.0252			0.2058	-0.0727
319.83	17.88			0.3251	-0.0252			0.2058	-0.0727

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16			0.3250	-0.0253			0.2057	-0.0728
339.83	18.43			0.3250	-0.0253			0.2056	-0.0729
349.83	18.70			0.3250	-0.0253			0.2056	-0.0729
359.83	18.97			0.3249	-0.0254			0.2056	-0.0729
369.83	19.23			0.3249	-0.0254			0.2056	-0.0729
379.83	19.49			0.3249	-0.0254			0.2055	-0.0730
389.83	19.74			0.3247	-0.0256			0.2055	-0.0730
399.83	20.00			0.3247	-0.0256			0.2055	-0.0730
409.83	20.24			0.3247	-0.0256			0.2054	-0.0731
419.83	20.49			0.3246	-0.0257			0.2054	-0.0731
429.83	20.73			0.3246	-0.0257			0.2051	-0.0734
439.83	20.97			0.3246	-0.0257			0.2051	-0.0734
449.83	21.21			0.3246	-0.0257			0.2051	-0.0734
459.83	21.44			0.3246	-0.0257			0.2051	-0.0734
469.83	21.68			0.3246	-0.0257			0.2050	-0.0735
479.83	21.91			0.3246	-0.0257			0.2048	-0.0737
489.83	22.13			0.3246	-0.0257			0.2048	-0.0737
499.83	22.36			0.3246	-0.0257			0.2048	-0.0737
509.83	22.58			0.3246	-0.0257			0.2048	-0.0737
519.83	22.80			0.3246	-0.0257			0.2047	-0.0738
529.83	23.02			0.3245	-0.0258			0.2047	-0.0738
539.83	23.23			0.3245	-0.0258			0.2047	-0.0738
549.83	23.45			0.3245	-0.0258			0.2047	-0.0738
559.83	23.66			0.3244	-0.0259			0.2047	-0.0738
569.83	23.87			0.3244	-0.0259			0.2047	-0.0738
579.83	24.08			0.3244	-0.0259			0.2047	-0.0738
589.83	24.29			0.3244	-0.0259			0.2045	-0.0740
599.83	24.49			0.3244	-0.0259			0.2045	-0.0740
609.83	24.69			0.3244	-0.0259			0.2045	-0.0740
619.83	24.90			0.3244	-0.0259			0.2045	-0.0740
629.83	25.10			0.3244	-0.0259			0.2044	-0.0741
639.83	25.29			0.3244	-0.0259			0.2045	-0.0740
649.83	25.49			0.3243	-0.0260			0.2045	-0.0740
659.83	25.69			0.3244	-0.0259			0.2043	-0.0742
669.83	25.88			0.3244	-0.0259			0.2044	-0.0741
679.83	26.07			0.3243	-0.0260			0.2043	-0.0742
689.83	26.26			0.3244	-0.0259			0.2043	-0.0742
699.83	26.45			0.3243	-0.0260			0.2043	-0.0742
709.83	26.64			0.3243	-0.0260			0.2043	-0.0742
719.83	26.83			0.3244	-0.0259			0.2043	-0.0742
749.83	27.38			0.3242	-0.0261			0.2043	-0.0742
779.83	27.93			0.3241	-0.0262			0.2043	-0.0742
809.83	28.46			0.3241	-0.0262			0.2040	-0.0745
839.83	28.98			0.3241	-0.0262			0.2039	-0.0746
869.83	29.49			0.3240	-0.0263			0.2039	-0.0746
899.83	30.00			0.3241	-0.0262			0.2038	-0.0747
929.83	30.49			0.3240	-0.0263			0.2038	-0.0747
959.83	30.98			0.3240	-0.0263			0.2038	-0.0747
989.83	31.46			0.3240	-0.0263			0.2037	-0.0748
1019.83	31.93			0.3239	-0.0264			0.2037	-0.0748
1049.83	32.40			0.3238	-0.0265			0.2036	-0.0749
1079.83	32.86			0.3234	-0.0269			0.2036	-0.0749
1109.83	33.31							0.2036	-0.0749
1139.83	33.76							0.2036	-0.0749

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.2034	0.0000	0.1654	0.0000	0.4133	0.0000	0.3153	0.0000
0.17	0.41	0.1966	-0.0068	0.3553	0.1899	0.4133	0.0000	0.3153	0.0000
0.33	0.58	0.1949	-0.0085	0.1500	-0.0154	0.4133	0.0000	0.2993	-0.0160
0.50	0.71	0.1941	-0.0093	0.1454	-0.0200	0.4133	0.0000	0.2930	-0.0223
0.67	0.82	0.1933	-0.0101	0.1405	-0.0249	0.4079	-0.0054	0.2897	-0.0256
0.83	0.91	0.1926	-0.0108	0.1362	-0.0292	0.4047	-0.0086	0.2856	-0.0297
1.00	1.00	0.1920	-0.0114	0.1337	-0.0317	0.4004	-0.0129	0.2833	-0.0320
1.17	1.08	0.1916	-0.0118	0.1319	-0.0335	0.3982	-0.0151	0.2806	-0.0347
1.33	1.15	0.1910	-0.0124	0.1288	-0.0366	0.3949	-0.0184	0.2786	-0.0367
1.50	1.22	0.1907	-0.0127	0.1272	-0.0382	0.3928	-0.0205	0.2759	-0.0394
1.67	1.29	0.1904	-0.0130	0.1244	-0.0410	0.3900	-0.0233	0.2744	-0.0409
1.83	1.35	0.1900	-0.0134	0.1211	-0.0443	0.3882	-0.0251	0.2730	-0.0423
2.00	1.41	0.1899	-0.0135	0.1190	-0.0464	0.3858	-0.0275	0.2711	-0.0442
2.17	1.47	0.1899	-0.0135	0.1162	-0.0492	0.3843	-0.0290	0.2698	-0.0455
2.33	1.53	0.1893	-0.0141	0.1145	-0.0509	0.3820	-0.0313	0.2683	-0.0470
2.50	1.58	0.1891	-0.0143	0.1126	-0.0528	0.3806	-0.0327	0.2677	-0.0476
2.67	1.63	0.1888	-0.0146	0.1103	-0.0551	0.3793	-0.0340	0.2677	-0.0476
2.83	1.68	0.1887	-0.0147	0.1088	-0.0566	0.3774	-0.0359	0.2677	-0.0476
3.00	1.73	0.1885	-0.0149	0.1073	-0.0581	0.3764	-0.0369	0.2677	-0.0476
3.17	1.78	0.1883	-0.0151	0.1052	-0.0602	0.3745	-0.0388	0.2625	-0.0528
3.33	1.83	0.1883	-0.0151	0.1040	-0.0614	0.3734	-0.0399	0.2617	-0.0536
3.50	1.87	0.1879	-0.0155	0.1028	-0.0626	0.3718	-0.0415	0.2606	-0.0547
3.67	1.91	0.1879	-0.0155	0.1018	-0.0636	0.3708	-0.0425	0.2595	-0.0558
3.83	1.96	0.1878	-0.0156	0.1018	-0.0636	0.3695	-0.0438	0.2588	-0.0565
4.00	2.00	0.1875	-0.0159	0.0997	-0.0657	0.3680	-0.0453	0.2582	-0.0571
4.17	2.04	0.1874	-0.0160	0.0992	-0.0662	0.3673	-0.0460	0.2578	-0.0575
4.33	2.08	0.1872	-0.0162	0.0978	-0.0676	0.3660	-0.0473	0.2578	-0.0575
4.50	2.12	0.1870	-0.0164	0.0970	-0.0684	0.3654	-0.0479	0.2578	-0.0575
4.67	2.16	0.1870	-0.0164	0.0960	-0.0694	0.3641	-0.0492	0.2578	-0.0575
4.83	2.20	0.1868	-0.0166	0.0948	-0.0706	0.3633	-0.0500	0.2578	-0.0575
5.00	2.24	0.1866	-0.0168	0.0939	-0.0715	0.3623	-0.0510	0.2544	-0.0609
5.17	2.27	0.1865	-0.0169	0.0928	-0.0726	0.3616	-0.0517	0.2537	-0.0616
5.33	2.31	0.1863	-0.0171	0.0920	-0.0734	0.3607	-0.0526	0.2530	-0.0623
5.50	2.35	0.1862	-0.0172	0.0910	-0.0744	0.3600	-0.0533	0.2526	-0.0627
5.67	2.38	0.1861	-0.0173	0.0903	-0.0751	0.3591	-0.0542	0.2526	-0.0627
5.83	2.42	0.1860	-0.0174	0.0893	-0.0761	0.3585	-0.0548	0.2526	-0.0627
6.00	2.45	0.1858	-0.0176	0.0887	-0.0767	0.3579	-0.0554	0.2511	-0.0642
6.17	2.48	0.1857	-0.0177	0.0877	-0.0777	0.3573	-0.0560	0.2507	-0.0646
6.33	2.52	0.1855	-0.0179	0.0871	-0.0783	0.3566	-0.0567	0.2501	-0.0652
6.50	2.55	0.1854	-0.0180	0.0861	-0.0793	0.3561	-0.0572	0.2499	-0.0654
6.67	2.58	0.1854	-0.0180	0.0852	-0.0802	0.3553	-0.0580	0.2494	-0.0659
6.83	2.61	0.1853	-0.0181	0.0841	-0.0813	0.3549	-0.0584	0.2491	-0.0662
7.00	2.65	0.1851	-0.0183	0.0834	-0.0820	0.3545	-0.0588	0.2487	-0.0666
7.17	2.68	0.1850	-0.0184	0.0825	-0.0829	0.3538	-0.0595	0.2483	-0.0670
7.33	2.71	0.1849	-0.0185	0.0819	-0.0835	0.3534	-0.0599	0.2483	-0.0670
7.50	2.74	0.1848	-0.0186	0.0811	-0.0843	0.3530	-0.0603	0.2483	-0.0670
7.67	2.77	0.1847	-0.0187	0.0806	-0.0848	0.3529	-0.0604	0.2473	-0.0680
7.83	2.80	0.1846	-0.0188	0.0797	-0.0857	0.3522	-0.0611	0.2471	-0.0682
8.00	2.83	0.1846	-0.0188	0.0792	-0.0862	0.3521	-0.0612	0.2467	-0.0686
8.17	2.86	0.1845	-0.0189	0.0784	-0.0870	0.3515	-0.0618	0.2465	-0.0688
8.33	2.89	0.1844	-0.0190	0.0779	-0.0875	0.3512	-0.0621	0.2461	-0.0692
8.50	2.92	0.1843	-0.0191	0.0774	-0.0880	0.3510	-0.0623	0.2459	-0.0694
8.67	2.94	0.1842	-0.0192	0.0768	-0.0886	0.3506	-0.0627	0.2459	-0.0694
8.83	2.97	0.1841	-0.0193	0.0761	-0.0893	0.3505	-0.0628	0.2453	-0.0700
9.00	3.00	0.1840	-0.0194	0.0755	-0.0899	0.3498	-0.0635	0.2452	-0.0701
9.17	3.03	0.1839	-0.0195	0.0749	-0.0905	0.3495	-0.0638	0.2449	-0.0704
9.33	3.06	0.1838	-0.0196	0.0746	-0.0908	0.3490	-0.0643	0.2446	-0.0707
9.50	3.08	0.1838	-0.0196	0.0740	-0.0914	0.3488	-0.0645	0.2444	-0.0709
9.67	3.11	0.1837	-0.0197	0.0737	-0.0917	0.3483	-0.0650	0.2442	-0.0711
9.83	3.14	0.1837	-0.0197	0.0731	-0.0923	0.3481	-0.0652	0.2439	-0.0714
10.00	3.16	0.1836	-0.0198	0.0728	-0.0926	0.3477	-0.0656	0.2437	-0.0716
10.17	3.19	0.1835	-0.0199	0.0724	-0.0930	0.3474	-0.0659	0.2435	-0.0718
10.33	3.21	0.1832	-0.0202	0.0720	-0.0934	0.3471	-0.0662	0.2433	-0.0720
10.50	3.24	0.1832	-0.0202	0.0716	-0.0938	0.3469	-0.0664	0.2430	-0.0723
10.67	3.27	0.1831	-0.0203	0.0713	-0.0941	0.3466	-0.0667	0.2429	-0.0724

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.1831	-0.0203	0.0709	-0.0945	0.3463	-0.0670	0.2427	-0.0726
11.00	3.32	0.1830	-0.0204	0.0706	-0.0948	0.3459	-0.0674	0.2426	-0.0727
11.17	3.34	0.1830	-0.0204	0.0702	-0.0952	0.3458	-0.0675	0.2423	-0.0730
11.33	3.37	0.1829	-0.0205	0.0700	-0.0954	0.3455	-0.0678	0.2422	-0.0731
11.50	3.39	0.1829	-0.0205	0.0697	-0.0957	0.3453	-0.0680	0.2420	-0.0733
11.67	3.42	0.1828	-0.0206	0.0694	-0.0960	0.3450	-0.0683	0.2419	-0.0734
11.83	3.44	0.1827	-0.0207	0.0690	-0.0964	0.3448	-0.0685	0.2417	-0.0736
12.00	3.46	0.1826	-0.0208	0.0689	-0.0965	0.3445	-0.0688	0.2416	-0.0737
12.17	3.49	0.1826	-0.0208	0.0685	-0.0969	0.3443	-0.0690	0.2414	-0.0739
12.33	3.51	0.1825	-0.0209	0.0683	-0.0971	0.3441	-0.0692	0.2412	-0.0741
12.50	3.54	0.1824	-0.0210	0.0681	-0.0973	0.3440	-0.0693	0.2411	-0.0742
12.67	3.56	0.1824	-0.0210	0.0678	-0.0976	0.3436	-0.0697	0.2410	-0.0743
12.83	3.58	0.1823	-0.0211	0.0675	-0.0979	0.3435	-0.0698	0.2408	-0.0745
13.00	3.61	0.1823	-0.0211	0.0674	-0.0980	0.3433	-0.0700	0.2407	-0.0746
13.17	3.63	0.1823	-0.0211	0.0671	-0.0983	0.3431	-0.0702	0.2405	-0.0748
13.33	3.65	0.1822	-0.0212	0.0670	-0.0984	0.3429	-0.0704	0.2405	-0.0748
13.50	3.67	0.1822	-0.0212	0.0666	-0.0988	0.3427	-0.0706	0.2403	-0.0750
13.67	3.70	0.1821	-0.0213	0.0666	-0.0988	0.3426	-0.0707	0.2402	-0.0751
13.83	3.72	0.1820	-0.0214	0.0663	-0.0991	0.3424	-0.0709	0.2401	-0.0752
14.00	3.74	0.1819	-0.0215	0.0662	-0.0992	0.3422	-0.0711	0.2399	-0.0754
14.17	3.76	0.1819	-0.0215	0.0659	-0.0995	0.3420	-0.0713	0.2397	-0.0756
14.33	3.79	0.1819	-0.0215	0.0658	-0.0996	0.3420	-0.0713	0.2397	-0.0756
14.50	3.81	0.1818	-0.0216	0.0655	-0.0999	0.3420	-0.0713	0.2396	-0.0757
14.67	3.83	0.1817	-0.0217	0.0653	-0.1001	0.3415	-0.0718	0.2395	-0.0758
14.83	3.85	0.1817	-0.0217	0.0651	-0.1003	0.3413	-0.0720	0.2393	-0.0760
15.33	3.92	0.1815	-0.0219	0.0645	-0.1009	0.3409	-0.0724	0.2390	-0.0763
15.83	3.98	0.1815	-0.0219	0.0640	-0.1014	0.3405	-0.0728	0.2387	-0.0766
16.33	4.04	0.1813	-0.0221	0.0636	-0.1018	0.3401	-0.0732	0.2384	-0.0769
16.83	4.10	0.1812	-0.0222	0.0632	-0.1022	0.3398	-0.0735	0.2381	-0.0772
17.33	4.16	0.1810	-0.0224	0.0628	-0.1026	0.3394	-0.0739	0.2379	-0.0774
17.83	4.22	0.1809	-0.0225	0.0624	-0.1030	0.3391	-0.0742	0.2376	-0.0777
18.33	4.28	0.1807	-0.0227	0.0621	-0.1033	0.3388	-0.0745	0.2373	-0.0780
18.83	4.34	0.1807	-0.0227	0.0618	-0.1036	0.3385	-0.0748	0.2371	-0.0782
19.33	4.40	0.1806	-0.0228	0.0615	-0.1039	0.3382	-0.0751	0.2369	-0.0784
19.83	4.45	0.1805	-0.0229	0.0611	-0.1043	0.3380	-0.0753	0.2366	-0.0787
20.33	4.51	0.1804	-0.0230	0.0609	-0.1045	0.3377	-0.0756	0.2365	-0.0788
20.83	4.56	0.1803	-0.0231	0.0606	-0.1048	0.3375	-0.0758	0.2363	-0.0790
21.33	4.62	0.1801	-0.0233	0.0603	-0.1051	0.3372	-0.0761	0.2361	-0.0792
21.83	4.67	0.1800	-0.0234	0.0601	-0.1053	0.3371	-0.0762	0.2359	-0.0794
22.33	4.73	0.1799	-0.0235	0.0598	-0.1056	0.3368	-0.0765	0.2357	-0.0796
22.83	4.78	0.1798	-0.0236	0.0596	-0.1058	0.3366	-0.0767	0.2356	-0.0797
23.33	4.83	0.1797	-0.0237	0.0593	-0.1061	0.3364	-0.0769	0.2354	-0.0799
23.83	4.88	0.1796	-0.0238	0.0591	-0.1063	0.3363	-0.0770	0.2352	-0.0801
24.33	4.93	0.1795	-0.0239	0.0588	-0.1066	0.3361	-0.0772	0.2351	-0.0802
24.83	4.98	0.1794	-0.0240	0.0587	-0.1067	0.3359	-0.0774	0.2349	-0.0804
25.33	5.03	0.1793	-0.0241	0.0584	-0.1070	0.3357	-0.0776	0.2347	-0.0806
25.83	5.08	0.1793	-0.0241	0.0581	-0.1073	0.3356	-0.0777	0.2345	-0.0808
26.33	5.13	0.1792	-0.0242	0.0578	-0.1076	0.3354	-0.0779	0.2344	-0.0809
26.83	5.18	0.1791	-0.0243	0.0575	-0.1079	0.3353	-0.0780	0.2343	-0.0810
27.33	5.23	0.1791	-0.0243	0.0572	-0.1082	0.3351	-0.0782	0.2342	-0.0811
27.83	5.28	0.1790	-0.0244	0.0569	-0.1085	0.3349	-0.0784	0.2341	-0.0812
28.33	5.32	0.1790	-0.0244	0.0565	-0.1089	0.3348	-0.0785	0.2340	-0.0813
28.83	5.37	0.1789	-0.0245	0.0562	-0.1092	0.3347	-0.0786	0.2338	-0.0815
29.33	5.42	0.1788	-0.0246	0.0558	-0.1096	0.3346	-0.0787	0.2336	-0.0817
29.83	5.46	0.1787	-0.0247	0.0555	-0.1099	0.3344	-0.0789	0.2334	-0.0819
30.33	5.51	0.1786	-0.0248	0.0550	-0.1104	0.3343	-0.0790	0.2334	-0.0819
30.83	5.55	0.1786	-0.0248	0.0547	-0.1107	0.3341	-0.0792	0.2333	-0.0820
31.33	5.60	0.1785	-0.0249	0.0542	-0.1112	0.3341	-0.0792	0.2332	-0.0821
31.83	5.64	0.1784	-0.0250	0.0538	-0.1116	0.3340	-0.0793	0.2331	-0.0822
32.33	5.69	0.1783	-0.0251	0.0534	-0.1120	0.3338	-0.0795	0.2330	-0.0823
32.83	5.73	0.1783	-0.0251	0.0531	-0.1123	0.3337	-0.0796	0.2328	-0.0825
33.33	5.77	0.1783	-0.0251	0.0528	-0.1126	0.3336	-0.0797	0.2328	-0.0825
33.83	5.82	0.1782	-0.0252	0.0525	-0.1129	0.3335	-0.0798	0.2326	-0.0827
34.33	5.86	0.1782	-0.0252	0.0523	-0.1131	0.3334	-0.0799	0.2326	-0.0827
34.83	5.90	0.1781	-0.0253	0.0520	-0.1134	0.3333	-0.0800	0.2325	-0.0828

Sample: Pond 8E, BH-1 @ 7 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.1780	-0.0254	0.0518	-0.1136	0.3333	-0.0800	0.2324	-0.0829
35.83	5.99	0.1780	-0.0254	0.0516	-0.1138	0.3332	-0.0801	0.2323	-0.0830
36.33	6.03	0.1779	-0.0255	0.0513	-0.1141	0.3331	-0.0802	0.2322	-0.0831
36.83	6.07	0.1778	-0.0256	0.0511	-0.1143	0.3329	-0.0804	0.2320	-0.0833
37.33	6.11	0.1778	-0.0256	0.0509	-0.1145	0.3329	-0.0804	0.2319	-0.0834
37.83	6.15	0.1777	-0.0257	0.0507	-0.1147	0.3328	-0.0805	0.2319	-0.0834
38.33	6.19	0.1777	-0.0257	0.0505	-0.1149	0.3326	-0.0807	0.2318	-0.0835
38.83	6.23	0.1776	-0.0258	0.0503	-0.1151	0.3325	-0.0808	0.2317	-0.0836
39.33	6.27	0.1776	-0.0258	0.0501	-0.1153	0.3325	-0.0808	0.2317	-0.0836
39.83	6.31	0.1775	-0.0259	0.0500	-0.1154	0.3325	-0.0808	0.2316	-0.0837
40.33	6.35	0.1775	-0.0259	0.0498	-0.1156	0.3324	-0.0809	0.2315	-0.0838
40.83	6.39	0.1775	-0.0259	0.0496	-0.1158	0.3323	-0.0810	0.2314	-0.0839
41.33	6.43	0.1774	-0.0260	0.0494	-0.1160	0.3322	-0.0811	0.2313	-0.0840
41.83	6.47	0.1774	-0.0260	0.0493	-0.1161	0.3321	-0.0812	0.2313	-0.0840
42.33	6.51	0.1773	-0.0261	0.0491	-0.1163	0.3320	-0.0813	0.2312	-0.0841
42.83	6.54	0.1773	-0.0261	0.0489	-0.1165	0.3319	-0.0814	0.2312	-0.0841
43.33	6.58	0.1772	-0.0262	0.0488	-0.1166	0.3318	-0.0815	0.2311	-0.0842
43.83	6.62	0.1770	-0.0264	0.0486	-0.1168	0.3318	-0.0815	0.2310	-0.0843
44.33	6.66	0.1769	-0.0265	0.0485	-0.1169	0.3317	-0.0816	0.2310	-0.0843
44.83	6.70	0.1769	-0.0265	0.0484	-0.1170	0.3317	-0.0816	0.2309	-0.0844
45.33	6.73	0.1769	-0.0265	0.0483	-0.1171	0.3316	-0.0817	0.2309	-0.0844
45.83	6.77	0.1768	-0.0266	0.0481	-0.1173	0.3315	-0.0818	0.2308	-0.0845
46.33	6.81	0.1767	-0.0267	0.0480	-0.1174	0.3315	-0.0818	0.2307	-0.0846
46.83	6.84	0.1767	-0.0267	0.0479	-0.1175	0.3314	-0.0819	0.2307	-0.0846
47.33	6.88	0.1767	-0.0267	0.0478	-0.1176	0.3313	-0.0820	0.2306	-0.0847
47.83	6.92	0.1767	-0.0267	0.0477	-0.1177	0.3312	-0.0821	0.2305	-0.0848
48.33	6.95	0.1767	-0.0267	0.0476	-0.1178	0.3311	-0.0822	0.2305	-0.0848
48.83	6.99	0.1767	-0.0267	0.0474	-0.1180	0.3311	-0.0822	0.2304	-0.0849
49.33	7.02	0.1766	-0.0268	0.0473	-0.1181	0.3310	-0.0823	0.2303	-0.0850
49.83	7.06	0.1766	-0.0268	0.0472	-0.1182	0.3310	-0.0823	0.2303	-0.0850
50.33	7.09	0.1765	-0.0269	0.0471	-0.1183	0.3309	-0.0824	0.2302	-0.0851
50.83	7.13	0.1765	-0.0269	0.0470	-0.1184	0.3309	-0.0824	0.2302	-0.0851
51.33	7.16	0.1764	-0.0270	0.0470	-0.1184	0.3308	-0.0825	0.2302	-0.0851
51.83	7.20	0.1764	-0.0270	0.0469	-0.1185	0.3308	-0.0825	0.2301	-0.0852
52.33	7.23	0.1764	-0.0270	0.0468	-0.1186	0.3307	-0.0826	0.2301	-0.0852
52.83	7.27	0.1763	-0.0271	0.0466	-0.1188	0.3307	-0.0826	0.2300	-0.0853
53.33	7.30	0.1763	-0.0271	0.0465	-0.1189	0.3306	-0.0827	0.2300	-0.0853
53.83	7.34	0.1763	-0.0271	0.0464	-0.1190	0.3305	-0.0828	0.2299	-0.0854
54.33	7.37	0.1762	-0.0272	0.0463	-0.1191	0.3305	-0.0828	0.2299	-0.0854
54.83	7.40	0.1762	-0.0272	0.0462	-0.1192	0.3304	-0.0829	0.2298	-0.0855
55.33	7.44	0.1761	-0.0273	0.0462	-0.1192	0.3303	-0.0830	0.2298	-0.0855
55.83	7.47	0.1761	-0.0273	0.0461	-0.1193	0.3303	-0.0830	0.2297	-0.0856
56.33	7.51	0.1761	-0.0273	0.0460	-0.1194	0.3302	-0.0831	0.2296	-0.0857
56.83	7.54	0.1760	-0.0274	0.0459	-0.1195	0.3302	-0.0831	0.2296	-0.0857
57.33	7.57	0.1760	-0.0274	0.0458	-0.1196	0.3301	-0.0832	0.2295	-0.0858
57.83	7.60	0.1760	-0.0274	0.0457	-0.1197	0.3301	-0.0832	0.2295	-0.0858
58.33	7.64	0.1760	-0.0274	0.0456	-0.1198	0.3301	-0.0832	0.2294	-0.0859
58.83	7.67	0.1760	-0.0274	0.0456	-0.1198	0.3300	-0.0833	0.2294	-0.0859
59.33	7.70	0.1759	-0.0275	0.0454	-0.1200	0.3300	-0.0833	0.2294	-0.0859
59.83	7.74	0.1759	-0.0275	0.0454	-0.1200	0.3299	-0.0834	0.2294	-0.0859
60.83	7.80	0.1758	-0.0276	0.0453	-0.1201	0.3298	-0.0835	0.2293	-0.0860
61.83	7.86	0.1758	-0.0276	0.0451	-0.1203	0.3297	-0.0836	0.2292	-0.0861
62.83	7.93	0.1757	-0.0277	0.0450	-0.1204	0.3296	-0.0837	0.2291	-0.0862
63.83	7.99	0.1756	-0.0278	0.0448	-0.1206	0.3295	-0.0838	0.2290	-0.0863
64.83	8.05	0.1756	-0.0278	0.0447	-0.1207	0.3294	-0.0839	0.2289	-0.0864
65.83	8.11	0.1755	-0.0279	0.0446	-0.1208	0.3293	-0.0840	0.2288	-0.0865
66.83	8.18	0.1754	-0.0280	0.0445	-0.1209	0.3293	-0.0840	0.2287	-0.0866
67.83	8.24	0.1754	-0.0280	0.0443	-0.1211	0.3293	-0.0840	0.2287	-0.0866
68.83	8.30	0.1753	-0.0281	0.0442	-0.1212	0.3291	-0.0842	0.2287	-0.0866
69.83	8.36	0.1752	-0.0282	0.0441	-0.1213	0.3290	-0.0843	0.2286	-0.0867
70.83	8.42	0.1752	-0.0282	0.0440	-0.1214	0.3289	-0.0844	0.2285	-0.0868
71.83	8.48	0.1752	-0.0282	0.0439	-0.1215	0.3289	-0.0844	0.2284	-0.0869
72.83	8.53	0.1752	-0.0282	0.0438	-0.1216	0.3288	-0.0845	0.2284	-0.0869
73.83	8.59	0.1751	-0.0283	0.0437	-0.1217	0.3287	-0.0846	0.2283	-0.0870
74.83	8.65	0.1751	-0.0283	0.0436	-0.1218	0.3286	-0.0847	0.2282	-0.0871

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.1750	-0.0284	0.0435	-0.1219	0.3284	-0.0849	0.2282	-0.0871
76.83	8.77	0.1749	-0.0285	0.0434	-0.1220	0.3284	-0.0849	0.2281	-0.0872
77.83	8.82	0.1749	-0.0285	0.0434	-0.1220	0.3283	-0.0850	0.2280	-0.0873
78.83	8.88	0.1748	-0.0286	0.0433	-0.1221	0.3283	-0.0850	0.2279	-0.0874
79.83	8.93	0.1748	-0.0286	0.0432	-0.1222	0.3282	-0.0851	0.2279	-0.0874
80.83	8.99	0.1747	-0.0287	0.0431	-0.1223	0.3281	-0.0852	0.2279	-0.0874
81.83	9.05	0.1747	-0.0287	0.0430	-0.1224	0.3281	-0.0852	0.2278	-0.0875
82.83	9.10	0.1746	-0.0288	0.0430	-0.1224	0.3280	-0.0853	0.2278	-0.0875
83.83	9.16	0.1745	-0.0289	0.0429	-0.1225	0.3280	-0.0853	0.2277	-0.0876
84.83	9.21	0.1745	-0.0289	0.0428	-0.1226	0.3279	-0.0854	0.2277	-0.0876
85.83	9.26	0.1745	-0.0289	0.0426	-0.1228	0.3278	-0.0855	0.2276	-0.0877
86.83	9.32	0.1744	-0.0290	0.0425	-0.1229	0.3278	-0.0855	0.2275	-0.0878
87.83	9.37	0.1744	-0.0290	0.0425	-0.1229	0.3278	-0.0855	0.2274	-0.0879
88.83	9.43	0.1744	-0.0290	0.0424	-0.1230	0.3277	-0.0856	0.2274	-0.0879
89.83	9.48	0.1743	-0.0291	0.0423	-0.1231	0.3277	-0.0856	0.2273	-0.0880
90.83	9.53	0.1743	-0.0291	0.0422	-0.1232	0.3276	-0.0857	0.2273	-0.0880
91.83	9.58	0.1743	-0.0291	0.0422	-0.1232	0.3275	-0.0858	0.2272	-0.0881
92.83	9.64	0.1742	-0.0292	0.0421	-0.1233	0.3275	-0.0858	0.2272	-0.0881
93.83	9.69	0.1742	-0.0292	0.0421	-0.1233	0.3275	-0.0858	0.2271	-0.0882
94.83	9.74	0.1741	-0.0293	0.0420	-0.1234	0.3274	-0.0859	0.2271	-0.0882
95.83	9.79	0.1741	-0.0293	0.0419	-0.1235	0.3273	-0.0860	0.2271	-0.0882
96.83	9.84	0.1740	-0.0294	0.0419	-0.1235	0.3273	-0.0860	0.2270	-0.0883
97.83	9.89	0.1739	-0.0295	0.0418	-0.1236	0.3272	-0.0861	0.2270	-0.0883
98.83	9.94	0.1739	-0.0295	0.0417	-0.1237	0.3272	-0.0861	0.2269	-0.0884
99.83	9.99	0.1739	-0.0295	0.0417	-0.1237	0.3271	-0.0862	0.2269	-0.0884
100.83	10.04	0.1739	-0.0295	0.0416	-0.1238	0.3270	-0.0863	0.2268	-0.0885
101.83	10.09	0.1738	-0.0296	0.0415	-0.1239	0.3270	-0.0863	0.2268	-0.0885
102.83	10.14	0.1738	-0.0296	0.0415	-0.1239	0.3270	-0.0863	0.2267	-0.0886
103.83	10.19	0.1737	-0.0297	0.0415	-0.1239	0.3270	-0.0863	0.2267	-0.0886
104.83	10.24	0.1737	-0.0297	0.0414	-0.1240	0.3270	-0.0863	0.2266	-0.0887
105.83	10.29	0.1736	-0.0298	0.0414	-0.1240	0.3269	-0.0864	0.2265	-0.0888
106.83	10.34	0.1736	-0.0298	0.0413	-0.1241	0.3268	-0.0865	0.2265	-0.0888
107.83	10.38	0.1736	-0.0298	0.0413	-0.1241	0.3268	-0.0865	0.2265	-0.0888
108.83	10.43	0.1736	-0.0298	0.0412	-0.1242	0.3268	-0.0865	0.2265	-0.0888
109.83	10.48	0.1735	-0.0299	0.0412	-0.1242	0.3267	-0.0866	0.2264	-0.0889
110.83	10.53	0.1735	-0.0299	0.0411	-0.1243	0.3267	-0.0866	0.2264	-0.0889
111.83	10.58	0.1735	-0.0299	0.0410	-0.1244	0.3266	-0.0867	0.2263	-0.0890
112.83	10.62	0.1734	-0.0300	0.0410	-0.1244	0.3266	-0.0867	0.2263	-0.0890
113.83	10.67	0.1734	-0.0300	0.0409	-0.1245	0.3265	-0.0868	0.2263	-0.0890
114.83	10.72	0.1734	-0.0300	0.0409	-0.1245	0.3265	-0.0868	0.2263	-0.0890
115.83	10.76	0.1733	-0.0301	0.0408	-0.1246	0.3264	-0.0869	0.2262	-0.0891
116.83	10.81	0.1733	-0.0301	0.0408	-0.1246	0.3264	-0.0869	0.2262	-0.0891
117.83	10.86	0.1732	-0.0302	0.0407	-0.1247	0.3263	-0.0870	0.2261	-0.0892
118.83	10.90	0.1732	-0.0302	0.0407	-0.1247	0.3263	-0.0870	0.2261	-0.0892
119.83	10.95	0.1732	-0.0302	0.0406	-0.1248	0.3262	-0.0871	0.2260	-0.0893
129.83	11.39	0.1728	-0.0306	0.0403	-0.1251	0.3259	-0.0874	0.2257	-0.0896
139.83	11.83	0.1726	-0.0308	0.0399	-0.1255	0.3255	-0.0878	0.2254	-0.0899
149.83	12.24	0.1721	-0.0313	0.0396	-0.1258	0.3253	-0.0880	0.2250	-0.0903
159.83	12.64	0.1719	-0.0315	0.0392	-0.1262	0.3249	-0.0884	0.2247	-0.0906
169.83	13.03	0.1715	-0.0319	0.0389	-0.1265	0.3246	-0.0887	0.2245	-0.0908
179.83	13.41	0.1713	-0.0321	0.0386	-0.1268	0.3243	-0.0890	0.2241	-0.0912
189.83	13.78	0.1711	-0.0323	0.0383	-0.1271	0.3241	-0.0892	0.2239	-0.0914
199.83	14.14	0.1709	-0.0325	0.0381	-0.1273	0.3238	-0.0895	0.2238	-0.0915
209.83	14.49	0.1706	-0.0328	0.0378	-0.1276	0.3236	-0.0897	0.2236	-0.0917
219.83	14.83	0.1704	-0.0330	0.0376	-0.1278	0.3234	-0.0899	0.2234	-0.0919
229.83	15.16	0.1702	-0.0332	0.0374	-0.1280	0.3232	-0.0901	0.2232	-0.0921
239.83	15.49	0.1699	-0.0335	0.0372	-0.1282	0.3230	-0.0903	0.2231	-0.0922
249.83	15.81	0.1697	-0.0337	0.0370	-0.1284	0.3228	-0.0905	0.2229	-0.0924
259.83	16.12	0.1696	-0.0338	0.0368	-0.1286	0.3227	-0.0906	0.2227	-0.0926
269.83	16.43	0.1694	-0.0340	0.0367	-0.1287	0.3225	-0.0908	0.2225	-0.0928
279.83	16.73	0.1692	-0.0342	0.0365	-0.1289	0.3223	-0.0910	0.2224	-0.0929
289.83	17.02	0.1690	-0.0344	0.0364	-0.1290	0.3221	-0.0912	0.2222	-0.0931
299.83	17.32	0.1689	-0.0345	0.0362	-0.1292	0.3220	-0.0913	0.2221	-0.0932
309.83	17.60	0.1686	-0.0348	0.0360	-0.1294	0.3218	-0.0915	0.2219	-0.0934
319.83	17.88	0.1684	-0.0350	0.0359	-0.1295	0.3216	-0.0917	0.2217	-0.0936

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.1682	-0.0352	0.0358	-0.1296	0.3215	-0.0918	0.2216	-0.0937
339.83	18.43	0.1681	-0.0353	0.0357	-0.1297	0.3214	-0.0919	0.2215	-0.0938
349.83	18.70	0.1679	-0.0355	0.0356	-0.1298	0.3212	-0.0921	0.2214	-0.0939
359.83	18.97	0.1676	-0.0358	0.0355	-0.1299	0.3210	-0.0923	0.2212	-0.0941
369.83	19.23	0.1674	-0.0360	0.0353	-0.1301	0.3209	-0.0924	0.2212	-0.0941
379.83	19.49	0.1673	-0.0361	0.0352	-0.1302	0.3208	-0.0925	0.2210	-0.0943
389.83	19.74	0.1671	-0.0363	0.0352	-0.1302	0.3207	-0.0926	0.2209	-0.0944
399.83	20.00	0.1669	-0.0365	0.0351	-0.1303	0.3205	-0.0928	0.2208	-0.0945
409.83	20.24	0.1668	-0.0366	0.0350	-0.1304	0.3204	-0.0929	0.2208	-0.0945
419.83	20.49	0.1665	-0.0369	0.0350	-0.1304	0.3203	-0.0930	0.2206	-0.0947
429.83	20.73	0.1664	-0.0370	0.0348	-0.1306	0.3201	-0.0932	0.2205	-0.0948
439.83	20.97	0.1663	-0.0371	0.0348	-0.1306	0.3200	-0.0933	0.2204	-0.0949
449.83	21.21			0.0347	-0.1307	0.3199	-0.0934	0.2203	-0.0950
459.83	21.44			0.0345	-0.1309	0.3198	-0.0935	0.2202	-0.0951
469.83	21.68			0.0345	-0.1309	0.3197	-0.0936	0.2200	-0.0953
479.83	21.91			0.0344	-0.1310	0.3195	-0.0938	0.2200	-0.0953
489.83	22.13			0.0344	-0.1310	0.3194	-0.0939	0.2199	-0.0954
499.83	22.36			0.0343	-0.1311	0.3193	-0.0940	0.2198	-0.0955
509.83	22.58			0.0343	-0.1311	0.3192	-0.0941	0.2198	-0.0955
519.83	22.80			0.0343	-0.1311	0.3192	-0.0941	0.2196	-0.0957
529.83	23.02			0.0342	-0.1312	0.3191	-0.0942	0.2195	-0.0958
539.83	23.23			0.0341	-0.1313	0.3191	-0.0942	0.2190	-0.0963
549.83	23.45			0.0340	-0.1314	0.3190	-0.0943	0.2188	-0.0965
559.83	23.66			0.0339	-0.1315	0.3189	-0.0944	0.2187	-0.0966
569.83	23.87			0.0339	-0.1315	0.3188	-0.0945	0.2186	-0.0967
579.83	24.08			0.0338	-0.1316	0.3187	-0.0946	0.2185	-0.0968
589.83	24.29			0.0337	-0.1317	0.3186	-0.0947	0.2184	-0.0969
599.83	24.49			0.0337	-0.1317	0.3185	-0.0948	0.2183	-0.0970
609.83	24.69			0.0336	-0.1318	0.3184	-0.0949	0.2182	-0.0971
619.83	24.90			0.0336	-0.1318	0.3183	-0.0950	0.2181	-0.0972
629.83	25.10			0.0336	-0.1318	0.3183	-0.0950	0.2181	-0.0972
639.83	25.29			0.0336	-0.1318	0.3182	-0.0951	0.2179	-0.0974
649.83	25.49			0.0336	-0.1318	0.3181	-0.0952	0.2179	-0.0974
659.83	25.69			0.0335	-0.1319	0.3180	-0.0953	0.2178	-0.0975
669.83	25.88			0.0335	-0.1319	0.3180	-0.0953	0.2177	-0.0976
679.83	26.07			0.0333	-0.1321	0.3179	-0.0954	0.2176	-0.0977
689.83	26.26			0.0333	-0.1321	0.3179	-0.0954	0.2176	-0.0977
699.83	26.45			0.0332	-0.1322	0.3178	-0.0955	0.2176	-0.0977
709.83	26.64			0.0332	-0.1322	0.3176	-0.0957	0.2175	-0.0978
719.83	26.83			0.0332	-0.1322	0.3176	-0.0957	0.2175	-0.0978
749.83	27.38			0.0330	-0.1324	0.3175	-0.0958	0.2173	-0.0980
779.83	27.93			0.0330	-0.1324	0.3174	-0.0959	0.2172	-0.0981
809.83	28.46			0.0327	-0.1327	0.3173	-0.0960	0.2170	-0.0983
839.83	28.98			0.0327	-0.1327	0.3171	-0.0962	0.2169	-0.0984
869.83	29.49			0.0325	-0.1329	0.3170	-0.0963	0.2169	-0.0984
899.83	30.00			0.0325	-0.1329	0.3169	-0.0964	0.2168	-0.0985
929.83	30.49			0.0317	-0.1337	0.3167	-0.0966	0.2168	-0.0985
959.83	30.98					0.3167	-0.0966	0.2166	-0.0987
989.83	31.46					0.3166	-0.0967	0.2165	-0.0988
1019.83	31.93					0.3165	-0.0968	0.2164	-0.0989
1049.83	32.40					0.3163	-0.0970	0.2163	-0.0990
1079.83	32.86					0.3163	-0.0970	0.2163	-0.0990
1109.83	33.31					0.3162	-0.0971	0.2162	-0.0991
1139.83	33.76					0.3161	-0.0972	0.2162	-0.0991
1169.83	34.20					0.3160	-0.0973	0.2162	-0.0991
1199.83	34.64					0.3160	-0.0973	0.2161	-0.0992
1229.83	35.07					0.3160	-0.0973	0.2160	-0.0993
1259.83	35.49					0.3158	-0.0975	0.2160	-0.0993
1289.83	35.91					0.3158	-0.0975	0.2159	-0.0994
1319.83	36.33					0.3156	-0.0977	0.2159	-0.0994
1349.83	36.74					0.3156	-0.0977	0.2159	-0.0994
1379.83	37.15					0.3156	-0.0977	0.2159	-0.0994
1409.83	37.55					0.3155	-0.0978	0.2157	-0.0996
1439.83	37.95					0.3154	-0.0979	0.2157	-0.0996
1469.83	38.34							0.2157	-0.0996

Sample: Pond 8E, BH-1 @ 7 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
1499.83	38.73					0.2155	-0.0998		
1529.83	39.11					0.2155	-0.0998		
1559.83	39.49					0.2154	-0.0999		
1589.83	39.87					0.2154	-0.0999		
1619.83	40.25					0.2154	-0.0999		
1649.83	40.62					0.2153	-0.1000		
1679.83	40.99					0.2153	-0.1000		
1709.83	41.35					0.2152	-0.1001		
1739.83	41.71					0.2152	-0.1001		
1769.83	42.07					0.2150	-0.1003		
1799.83	42.42					0.2150	-0.1003		

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 8E, BH-2 @ 10.2 feet
Sample Ht.	1.688 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.012 (cu-ft)
Phos Cont.	0.0151 (%)
Init. M.C.	166.03 (%)
Init. M.C. (corr)	165.93 (%)
Final M.C.	110.56 (%)
Final M.C. (corr)	110.50 (%)
Dry Wt. of Soil/f	208.96 (g)
Dry Wt. of Soil/i	172.36 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	14.02
Phos. Wt. (g)	0.00
Dry Wt. (g)	5.27
Dry Wt. + Phos Wt. (g)	5.27
Water Wt. + Phos (g)	8.75
Water Wt. (g)	8.75
(final)	
Total Wet Wt. (g)	23.92
Phos. Wt. (g)	0.00
Dry Wt. (g)	11.36
Dry Wt. + Phos Wt. (g)	11.36
Water Wt. + Phos (g)	12.56
Water Wt. (g)	12.56

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density (pcf)	Void Ratio (e)	Dry Density (pcf)
0.0010	0.4423	0.0000	1.6880	0	3.643	37.50	4.629	30.93
0.0250	0.4395	0.0028	1.6852	0.17	3.635	37.56	4.620	30.98
0.0500	0.4366	0.0043	1.6837	0.25	3.631	37.59	4.615	31.01
0.1000	0.4338	0.0072	1.6808	0.43	3.623	37.66	4.605	31.06
0.2500	0.4216	0.0194	1.6686	1.15	3.590	37.93	4.565	31.29
0.5000	0.4127	0.0283	1.6597	1.68	3.565	38.13	4.535	31.45
1.0000	0.4008	0.0401	1.6479	2.38	3.533	38.41	4.496	31.68
2.0000	0.3734	0.0665	1.6215	3.94	3.460	39.03	4.408	32.19
4.0000	0.3055	0.2037	1.4843	12.07	3.083	42.64	3.950	35.17

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4423	0.0000	0.4381	0.0000	0.4367	0.0000	0.4338	0.0000
0.17	0.41	0.4423	0.0000	0.4381	0.0000	0.4367	0.0000	0.4350	0.0012
0.33	0.58	0.4423	0.0000	0.4381	0.0000	0.4364	-0.0003	0.4223	-0.0115
0.50	0.71	0.4421	-0.0002	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
0.67	0.82	0.4421	-0.0002	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
0.83	0.91	0.4421	-0.0002	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
1.00	1.00	0.4421	-0.0002	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
1.17	1.08	0.4421	-0.0002	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
1.33	1.15	0.4422	-0.0001	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
1.50	1.22	0.4422	-0.0001	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
1.67	1.29	0.4422	-0.0001	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
1.83	1.35	0.4422	-0.0001	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
2.00	1.41	0.4422	-0.0001	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
2.17	1.47	0.4420	-0.0003	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
2.33	1.53	0.4420	-0.0003	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
2.50	1.58	0.4420	-0.0003	0.4381	0.0000	0.4362	-0.0005	0.4221	-0.0117
2.67	1.63	0.4420	-0.0003	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
2.83	1.68	0.4404	-0.0019	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
3.00	1.73	0.4404	-0.0019	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
3.17	1.78	0.4404	-0.0019	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
3.33	1.83	0.4393	-0.0030	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
3.50	1.87	0.4397	-0.0026	0.4381	0.0000	0.4362	-0.0005	0.4220	-0.0118
3.67	1.91	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
3.83	1.96	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.00	2.00	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.17	2.04	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.33	2.08	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.50	2.12	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.67	2.16	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
4.83	2.20	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
5.00	2.24	0.4396	-0.0027	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
5.17	2.27	0.4397	-0.0026	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
5.33	2.31	0.4397	-0.0026	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
5.50	2.35	0.4397	-0.0026	0.4381	0.0000	0.4359	-0.0008	0.4220	-0.0118
5.67	2.38	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
5.83	2.42	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
6.00	2.45	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
6.17	2.48	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
6.33	2.52	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
6.50	2.55	0.4397	-0.0026	0.4381	0.0000	0.4348	-0.0019	0.4220	-0.0118
6.67	2.58	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
6.83	2.61	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.00	2.65	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.17	2.68	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.33	2.71	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.50	2.74	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.67	2.77	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
7.83	2.80	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.00	2.83	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.17	2.86	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.33	2.89	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.50	2.92	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.67	2.94	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
8.83	2.97	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.00	3.00	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.17	3.03	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.33	3.06	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.50	3.08	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.67	3.11	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
9.83	3.14	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
10.00	3.16	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
10.17	3.19	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
10.33	3.21	0.4397	-0.0026	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
10.50	3.24	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
10.67	3.27	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.00	3.32	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.17	3.34	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.33	3.37	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.50	3.39	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.67	3.42	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
11.83	3.44	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
12.00	3.46	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
12.17	3.49	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
12.33	3.51	0.4397	-0.0026	0.4381	0.0000	0.4343	-0.0024	0.4220	-0.0118
12.50	3.54	0.4390	-0.0033	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
12.67	3.56	0.4392	-0.0031	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
12.83	3.58	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.00	3.61	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.17	3.63	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.33	3.65	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.50	3.67	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.67	3.70	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
13.83	3.72	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.00	3.74	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.17	3.76	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.33	3.79	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.50	3.81	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.67	3.83	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
14.83	3.85	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
15.33	3.92	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4220	-0.0118
15.83	3.98	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4219	-0.0119
16.33	4.04	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4219	-0.0119
16.83	4.10	0.4396	-0.0027	0.4381	0.0000	0.4342	-0.0025	0.4219	-0.0119
17.33	4.16	0.4396	-0.0027	0.4373	-0.0008	0.4341	-0.0026	0.4219	-0.0119
17.83	4.22	0.4396	-0.0027	0.4370	-0.0011	0.4341	-0.0026	0.4219	-0.0119
18.33	4.28	0.4396	-0.0027	0.4367	-0.0014	0.4341	-0.0026	0.4219	-0.0119
18.83	4.34	0.4396	-0.0027	0.4367	-0.0014	0.4341	-0.0026	0.4219	-0.0119
19.33	4.40	0.4396	-0.0027	0.4367	-0.0014	0.4341	-0.0026	0.4219	-0.0119
19.83	4.45	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
20.33	4.51	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
20.83	4.56	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
21.33	4.62	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
21.83	4.67	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
22.33	4.73	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
22.83	4.78	0.4396	-0.0027	0.4366	-0.0015	0.4340	-0.0027	0.4219	-0.0119
23.33	4.83	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
23.83	4.88	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
24.33	4.93	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4210	-0.0128
24.83	4.98	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
25.33	5.03	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
25.83	5.08	0.4396	-0.0027	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
26.33	5.13	0.4396	-0.0027	0.4366	-0.0015	0.4340	-0.0027	0.4219	-0.0119
26.83	5.18	0.4395	-0.0028	0.4366	-0.0015	0.4340	-0.0027	0.4219	-0.0119
27.33	5.23	0.4395	-0.0028	0.4366	-0.0015	0.4340	-0.0027	0.4210	-0.0128
27.83	5.28	0.4395	-0.0028	0.4366	-0.0015	0.4340	-0.0027	0.4210	-0.0128
28.33	5.32	0.4395	-0.0028	0.4366	-0.0015	0.4340	-0.0027	0.4210	-0.0128
28.83	5.37	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4210	-0.0128
29.33	5.42	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
29.83	5.46	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
30.33	5.51	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
30.83	5.55	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
31.33	5.60	0.4395	-0.0028	0.4366	-0.0015	0.4341	-0.0026	0.4219	-0.0119
31.83	5.64	0.4395	-0.0028	0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
32.33	5.69	0.4395	-0.0028	0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
32.83	5.73			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
33.33	5.77			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119
33.83	5.82			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119
34.33	5.86			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119
34.83	5.90			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119

Sample: Pond 8E, BH-2 @ 10.2 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119
35.83	5.99			0.4369	-0.0012	0.4341	-0.0026	0.4219	-0.0119
36.33	6.03			0.4368	-0.0013	0.4340	-0.0027	0.4100	-0.0238
36.83	6.07			0.4368	-0.0013	0.4340	-0.0027	0.4100	-0.0238
37.33	6.11			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
37.83	6.15			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
38.33	6.19			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
38.83	6.23			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
39.33	6.27			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
39.83	6.31			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
40.33	6.35			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
40.83	6.39			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
41.33	6.43			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
41.83	6.47			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
42.33	6.51			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
42.83	6.54			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
43.33	6.58			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
43.83	6.62			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
44.33	6.66			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
44.83	6.70			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
45.33	6.73			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
45.83	6.77			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
46.33	6.81			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
46.83	6.84			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
47.33	6.88			0.4368	-0.0013	0.4340	-0.0027	0.4210	-0.0128
47.83	6.92			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
48.33	6.95			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
48.83	6.99			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
49.33	7.02			0.4368	-0.0013	0.4341	-0.0026	0.4219	-0.0119
49.83	7.06			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
50.33	7.09			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
50.83	7.13			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
51.33	7.16			0.4368	-0.0013	0.4340	-0.0027	0.4219	-0.0119
51.83	7.20			0.4368	-0.0013	0.4340	-0.0027	0.4218	-0.0120
52.33	7.23			0.4368	-0.0013	0.4340	-0.0027	0.4218	-0.0120
52.83	7.27			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
53.33	7.30			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
53.83	7.34			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
54.33	7.37			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
54.83	7.40			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
55.33	7.44			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
55.83	7.47			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
56.33	7.51			0.4367	-0.0014	0.4341	-0.0026	0.4210	-0.0128
56.83	7.54			0.4367	-0.0014	0.4341	-0.0026	0.4210	-0.0128
57.33	7.57			0.4367	-0.0014	0.4341	-0.0026	0.4210	-0.0128
57.83	7.60			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
58.33	7.64			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
58.83	7.67			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
59.33	7.70			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
59.83	7.74			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
60.83	7.80			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
61.83	7.86			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
62.83	7.93			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
63.83	7.99			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
64.83	8.05			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
65.83	8.11			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
66.83	8.18			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
67.83	8.24			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
68.83	8.30			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
69.83	8.36			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
70.83	8.42			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
71.83	8.48			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
72.83	8.53			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
73.83	8.59			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
74.83	8.65			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120

Sample: Pond 8E, BH-2 @ 10.2 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
76.83	8.77			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
77.83	8.82			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
78.83	8.88			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
79.83	8.93			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
80.83	8.99			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
81.83	9.05			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
82.83	9.10			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
83.83	9.16			0.4368	-0.0013	0.4341	-0.0026	0.4218	-0.0120
84.83	9.21			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
85.83	9.26			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
86.83	9.32			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
87.83	9.37			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
88.83	9.43			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
89.83	9.48			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
90.83	9.53			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
91.83	9.58			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
92.83	9.64			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
93.83	9.69			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
94.83	9.74			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
95.83	9.79			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
96.83	9.84			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
97.83	9.89			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
98.83	9.94			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
99.83	9.99			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
100.83	10.04			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
101.83	10.09			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
102.83	10.14			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
103.83	10.19			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
104.83	10.24			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
105.83	10.29			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
106.83	10.34			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
107.83	10.38			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
108.83	10.43			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
109.83	10.48			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
110.83	10.53			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
111.83	10.58			0.4367	-0.0014	0.4341	-0.0026	0.4218	-0.0120
112.83	10.62			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
113.83	10.67			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
114.83	10.72			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
115.83	10.76			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
116.83	10.81			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
117.83	10.86			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
118.83	10.90			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
119.83	10.95			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
129.83	11.39			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
139.83	11.83			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
149.83	12.24			0.4367	-0.0014	0.4340	-0.0027	0.4218	-0.0120
159.83	12.64			0.4367	-0.0014	0.4340	-0.0027	0.4217	-0.0121
169.83	13.03			0.4366	-0.0015	0.4339	-0.0028	0.4217	-0.0121
179.83	13.41			0.4367	-0.0014	0.4339	-0.0028	0.4217	-0.0121
189.83	13.78			0.4367	-0.0014	0.4340	-0.0027	0.4217	-0.0121
199.83	14.14			0.4367	-0.0014	0.4341	-0.0026	0.4217	-0.0121
209.83	14.49			0.4367	-0.0014	0.4341	-0.0026	0.4217	-0.0121
219.83	14.83			0.4367	-0.0014	0.4341	-0.0026	0.4217	-0.0121
229.83	15.16			0.4367	-0.0014	0.4340	-0.0027	0.4217	-0.0121
239.83	15.49			0.4367	-0.0014	0.4340	-0.0027	0.4217	-0.0121
249.83	15.81			0.4367	-0.0014	0.4338	-0.0029	0.4217	-0.0121
259.83	16.12			0.4367	-0.0014	0.4338	-0.0029	0.4216	-0.0122
269.83	16.43			0.4367	-0.0014	0.4338	-0.0029	0.4216	-0.0122
279.83	16.73			0.4367	-0.0014	0.4337	-0.0030	0.4216	-0.0122
289.83	17.02			0.4367	-0.0014	0.4338	-0.0029	0.4216	-0.0122
299.83	17.32			0.4367	-0.0014			0.4216	-0.0122
309.83	17.60			0.4367	-0.0014			0.4216	-0.0122
319.83	17.88			0.4367	-0.0014			0.4216	-0.0122

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16			0.4367	-0.0014			0.4216	-0.0122
339.83	18.43			0.4367	-0.0014			0.4217	-0.0121
349.83	18.70			0.4367	-0.0014			0.4217	-0.0121
359.83	18.97			0.4367	-0.0014			0.4217	-0.0121
369.83	19.23			0.4367	-0.0014			0.4217	-0.0121
379.83	19.49			0.4367	-0.0014			0.4217	-0.0121
389.83	19.74			0.4367	-0.0014			0.4217	-0.0121
399.83	20.00			0.4367	-0.0014			0.4217	-0.0121
409.83	20.24			0.4367	-0.0014			0.4216	-0.0122
419.83	20.49			0.4367	-0.0014			0.4217	-0.0121
429.83	20.73			0.4367	-0.0014			0.4218	-0.0120
439.83	20.97			0.4367	-0.0014			0.4217	-0.0121
449.83	21.21			0.4367	-0.0014			0.4217	-0.0121
459.83	21.44			0.4367	-0.0014			0.4218	-0.0120
469.83	21.68			0.4367	-0.0014			0.4218	-0.0120
479.83	21.91			0.4367	-0.0014			0.4217	-0.0121
489.83	22.13			0.4367	-0.0014			0.4217	-0.0121
499.83	22.36			0.4366	-0.0015			0.4217	-0.0121
509.83	22.58			0.4367	-0.0014			0.4218	-0.0120
519.83	22.80			0.4366	-0.0015			0.4217	-0.0121
529.83	23.02			0.4367	-0.0014			0.4218	-0.0120
539.83	23.23			0.4367	-0.0014			0.4217	-0.0121
549.83	23.45			0.4367	-0.0014			0.4217	-0.0121
559.83	23.66			0.4367	-0.0014			0.4217	-0.0121
569.83	23.87			0.4367	-0.0014			0.4218	-0.0120
579.83	24.08			0.4367	-0.0014			0.4218	-0.0120
589.83	24.29			0.4367	-0.0014			0.4217	-0.0121
599.83	24.49			0.4367	-0.0014			0.4217	-0.0121
609.83	24.69			0.4367	-0.0014			0.4217	-0.0121
619.83	24.90			0.4367	-0.0014			0.4217	-0.0121
629.83	25.10			0.4367	-0.0014			0.4217	-0.0121
639.83	25.29			0.4367	-0.0014			0.4218	-0.0120
649.83	25.49			0.4367	-0.0014			0.4217	-0.0121
659.83	25.69			0.4367	-0.0014			0.4217	-0.0121
669.83	25.88			0.4367	-0.0014			0.4218	-0.0120
679.83	26.07			0.4367	-0.0014			0.4218	-0.0120
689.83	26.26			0.4367	-0.0014			0.4218	-0.0120
699.83	26.45			0.4367	-0.0014			0.4218	-0.0120
709.83	26.64			0.4367	-0.0014			0.4218	-0.0120
719.83	26.83			0.4367	-0.0014			0.4218	-0.0120
749.83	27.38			0.4367	-0.0014			0.4218	-0.0120
779.83	27.93			0.4367	-0.0014			0.4218	-0.0120
809.83	28.46			0.4367	-0.0014			0.4218	-0.0120
839.83	28.98			0.4367	-0.0014			0.4217	-0.0121
869.83	29.49			0.4367	-0.0014			0.4218	-0.0120
899.83	30.00			0.4367	-0.0014			0.4218	-0.0120
929.83	30.49			0.4367	-0.0014			0.4218	-0.0120
959.83	30.98			0.4366	-0.0015			0.4217	-0.0121
989.83	31.46			0.4366	-0.0015			0.4218	-0.0120
1019.83	31.93							0.4217	-0.0121
1049.83	32.40							0.4217	-0.0121
1079.83	32.86							0.4217	-0.0121
1109.83	33.31							0.4217	-0.0121
1139.83	33.76							0.4216	-0.0122

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4216	0.0000	0.4126	0.0000	0.3998	0.0000	0.4427	0.0000
0.17	0.41	0.4216	0.0000	0.4126	0.0000	0.3998	0.0000	0.4427	0.0000
0.33	0.58	0.4142	-0.0074	0.4126	0.0000	0.3998	0.0000	0.4380	-0.0047
0.50	0.71	0.4141	-0.0075	0.4126	0.0000	0.3998	0.0000	0.4091	-0.0336
0.67	0.82	0.4141	-0.0075	0.4126	0.0000	0.3998	0.0000	0.3934	-0.0493
0.83	0.91	0.4141	-0.0075	0.4014	-0.0112	0.3748	-0.0250	0.3888	-0.0539
1.00	1.00	0.4141	-0.0075	0.4012	-0.0114	0.3748	-0.0250	0.3748	-0.0679
1.17	1.08	0.4140	-0.0076	0.4012	-0.0114	0.3748	-0.0250	0.3667	-0.0760
1.33	1.15	0.4140	-0.0076	0.4012	-0.0114	0.3748	-0.0250	0.3558	-0.0869
1.50	1.22	0.4140	-0.0076	0.4012	-0.0114	0.3748	-0.0250	0.3468	-0.0959
1.67	1.29	0.4140	-0.0076	0.4012	-0.0114	0.3748	-0.0250	0.3425	-0.1002
1.83	1.35	0.4140	-0.0076	0.4012	-0.0114	0.3747	-0.0251	0.3397	-0.1030
2.00	1.41	0.4140	-0.0076	0.4011	-0.0115	0.3747	-0.0251	0.3366	-0.1061
2.17	1.47	0.4140	-0.0076	0.4011	-0.0115	0.3747	-0.0251	0.3350	-0.1077
2.33	1.53	0.4140	-0.0076	0.4011	-0.0115	0.3747	-0.0251	0.3342	-0.1085
2.50	1.58	0.4140	-0.0076	0.4011	-0.0115	0.3747	-0.0251	0.3342	-0.1085
2.67	1.63	0.4140	-0.0076	0.4011	-0.0115	0.3747	-0.0251	0.3313	-0.1114
2.83	1.68	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3305	-0.1122
3.00	1.73	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3301	-0.1126
3.17	1.78	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3296	-0.1131
3.33	1.83	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3292	-0.1135
3.50	1.87	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3289	-0.1138
3.67	1.91	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3284	-0.1143
3.83	1.96	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3284	-0.1143
4.00	2.00	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3284	-0.1143
4.17	2.04	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3284	-0.1143
4.33	2.08	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3284	-0.1143
4.50	2.12	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
4.67	2.16	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
4.83	2.20	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.00	2.24	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.17	2.27	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.33	2.31	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.50	2.35	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.67	2.38	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
5.83	2.42	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.00	2.45	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.17	2.48	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.33	2.52	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.50	2.55	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.67	2.58	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
6.83	2.61	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.00	2.65	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.17	2.68	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.33	2.71	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.50	2.74	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.67	2.77	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
7.83	2.80	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
8.00	2.83	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3283	-0.1144
8.17	2.86	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3280	-0.1147
8.33	2.89	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
8.50	2.92	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
8.67	2.94	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
8.83	2.97	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.00	3.00	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.17	3.03	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.33	3.06	0.4140	-0.0076	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.50	3.08	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.67	3.11	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
9.83	3.14	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
10.00	3.16	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
10.17	3.19	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
10.33	3.21	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
10.50	3.24	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
10.67	3.27	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145

Sample: Pond 8E, BH-2 @ 10.2 feet

Time 'minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3280	-0.1147
11.00	3.32	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
11.17	3.34	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
11.33	3.37	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
11.50	3.39	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
11.67	3.42	0.4129	-0.0087	0.4011	-0.0115	0.3746	-0.0252	0.3282	-0.1145
11.83	3.44	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
12.00	3.46	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
12.17	3.49	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
12.33	3.51	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
12.50	3.54	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
12.67	3.56	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
12.83	3.58	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
13.00	3.61	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
13.17	3.63	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
13.33	3.65	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
13.50	3.67	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
13.67	3.70	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
13.83	3.72	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
14.00	3.74	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
14.17	3.76	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
14.33	3.79	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
14.50	3.81	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
14.67	3.83	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
14.83	3.85	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
15.33	3.92	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
15.83	3.98	0.4129	-0.0087	0.4010	-0.0116	0.3746	-0.0252	0.3282	-0.1145
16.33	4.04	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
16.83	4.10	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
17.33	4.16	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
17.83	4.22	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
18.33	4.28	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
18.83	4.34	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
19.33	4.40	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
19.83	4.45	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
20.33	4.51	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
20.83	4.56	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
21.33	4.62	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
21.83	4.67	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
22.33	4.73	0.4129	-0.0087	0.4011	-0.0115	0.3745	-0.0253	0.3282	-0.1145
22.83	4.78	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
23.33	4.83	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
23.83	4.88	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
24.33	4.93	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
24.83	4.98	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
25.33	5.03	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
25.83	5.08	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
26.33	5.13	0.4129	-0.0087	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
26.83	5.18	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
27.33	5.23	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
27.83	5.28	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
28.33	5.32	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
28.83	5.37	0.4129	-0.0087	0.4009	-0.0117	0.3740	-0.0258	0.3281	-0.1146
29.33	5.42	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
29.83	5.46	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
30.33	5.51	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
30.83	5.55	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
31.33	5.60	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
31.83	5.64	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
32.33	5.69	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
32.83	5.73	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
33.33	5.77	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
33.83	5.82	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
34.33	5.86	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
34.83	5.90	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146

Sample: Pond 8E, BH-2 @ 10.2 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
35.83	5.99	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
36.33	6.03	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
36.83	6.07	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
37.33	6.11	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
37.83	6.15	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
38.33	6.19	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
38.83	6.23	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
39.33	6.27	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
39.83	6.31	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
40.33	6.35	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
40.83	6.39	0.4127	-0.0089	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
41.33	6.43	0.4127	-0.0089	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
41.83	6.47	0.4127	-0.0089	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
42.33	6.51	0.4127	-0.0089	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
42.83	6.54	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
43.33	6.58	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
43.83	6.62	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
44.33	6.66	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
44.83	6.70	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
45.33	6.73	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
45.83	6.77	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
46.33	6.81	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
46.83	6.84	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
47.33	6.88	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
47.83	6.92	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
48.33	6.95	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
48.83	6.99	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
49.33	7.02	0.4129	-0.0087	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
49.83	7.06	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
50.33	7.09	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
50.83	7.13	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
51.33	7.16	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
51.83	7.20	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
52.33	7.23	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
52.83	7.27	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
53.33	7.30	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
53.83	7.34	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
54.33	7.37	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
54.83	7.40	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3281	-0.1146
55.33	7.44	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3281	-0.1146
55.83	7.47	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
56.33	7.51	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
56.83	7.54	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
57.33	7.57	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
57.83	7.60	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
58.33	7.64	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
58.83	7.67	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
59.33	7.70	0.4128	-0.0088	0.4010	-0.0116	0.3745	-0.0253	0.3282	-0.1145
59.83	7.74	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
60.83	7.80	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
61.83	7.86	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
62.83	7.93	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
63.83	7.99	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
64.83	8.05	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
65.83	8.11	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
66.83	8.18	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
67.83	8.24	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
68.83	8.30	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
69.83	8.36	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
70.83	8.42	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
71.83	8.48	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
72.83	8.53	0.4128	-0.0088	0.4009	-0.0117	0.3745	-0.0253	0.3282	-0.1145
73.83	8.59	0.4128	-0.0088	0.4009	-0.0117	0.3747	-0.0251	0.3282	-0.1145
74.83	8.65	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
76.83	8.77	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
77.83	8.82	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
78.83	8.88	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
79.83	8.93	0.4128	-0.0088	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
80.83	8.99	0.4128	-0.0088	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
81.83	9.05	0.4128	-0.0088	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
82.83	9.10	0.4128	-0.0088	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
83.83	9.16	0.4128	-0.0088	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
84.83	9.21	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
85.83	9.26	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
86.83	9.32	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
87.83	9.37	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
88.83	9.43	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
89.83	9.48	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
90.83	9.53	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
91.83	9.58	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
92.83	9.64	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
93.83	9.69	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
94.83	9.74	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
95.83	9.79	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
96.83	9.84	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
97.83	9.89	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
98.83	9.94	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
99.83	9.99	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
100.83	10.04	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
101.83	10.09	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
102.83	10.14	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
103.83	10.19	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
104.83	10.24	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
105.83	10.29	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
106.83	10.34	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
107.83	10.38	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
108.83	10.43	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
109.83	10.48	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
110.83	10.53	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
111.83	10.58	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
112.83	10.62	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
113.83	10.67	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
114.83	10.72	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
115.83	10.76	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
116.83	10.81	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
117.83	10.86	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
118.83	10.90	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
119.83	10.95	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
120.83	11.39	0.4128	-0.0088	0.4009	-0.0117	0.3736	-0.0262	0.3282	-0.1145
139.83	11.83	0.4128	-0.0088	0.4008	-0.0118	0.3736	-0.0262	0.3282	-0.1145
149.83	12.24	0.4128	-0.0088	0.4008	-0.0118	0.3737	-0.0261	0.3282	-0.1145
159.83	12.64	0.4127	-0.0089	0.4009	-0.0117	0.3737	-0.0261	0.3282	-0.1145
169.83	13.03	0.4125	-0.0091	0.4008	-0.0118	0.3736	-0.0262	0.3281	-0.1146
179.83	13.41	0.4125	-0.0091	0.4008	-0.0118	0.3736	-0.0262	0.3099	-0.1328
189.83	13.78	0.4125	-0.0091	0.4008	-0.0118	0.3736	-0.0262	0.3088	-0.1339
199.83	14.14	0.4126	-0.0090	0.4008	-0.0118	0.3735	-0.0263	0.3084	-0.1343
209.83	14.49	0.4126	-0.0090	0.4007	-0.0119	0.3735	-0.0263	0.3082	-0.1345
219.83	14.83	0.4127	-0.0089	0.4008	-0.0118	0.3735	-0.0263	0.3081	-0.1346
229.83	15.16	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3078	-0.1349
239.83	15.49	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3079	-0.1348
249.83	15.81	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3076	-0.1351
259.83	16.12	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3076	-0.1351
269.83	16.43	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3075	-0.1352
279.83	16.73	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3074	-0.1353
289.83	17.02	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3074	-0.1353
299.83	17.32	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3074	-0.1353
309.83	17.60	0.4127	-0.0089	0.4008	-0.0118	0.3735	-0.0263	0.3074	-0.1353
319.83	17.88	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3073	-0.1354

Sample: Pond 8E, BH-2 @ 10.2 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.4127	-0.0089	0.4008	-0.0118	0.3736	-0.0262	0.3073	-0.1354
339.83	18.43	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3073	-0.1354
349.83	18.70	0.4127	-0.0089	0.4007	-0.0119	0.3735	-0.0263	0.3073	-0.1354
359.83	18.97	0.4127	-0.0089	0.4007	-0.0119	0.3736	-0.0262	0.3072	-0.1355
369.83	19.23	0.4127	-0.0089	0.4008	-0.0118	0.3736	-0.0262	0.3072	-0.1355
379.83	19.49	0.4127	-0.0089	0.4008	-0.0118	0.3735	-0.0263	0.3072	-0.1355
389.83	19.74	0.4127	-0.0089	0.4008	-0.0118	0.3736	-0.0262	0.3072	-0.1355
399.83	20.00	0.4126	-0.0090	0.4009	-0.0117	0.3736	-0.0262	0.3069	-0.1358
409.83	20.24	0.4127	-0.0089	0.4009	-0.0117	0.3735	-0.0263	0.3069	-0.1358
419.83	20.49	0.4127	-0.0089	0.4009	-0.0117	0.3736	-0.0262	0.3068	-0.1359
429.83	20.73	0.4127	-0.0089	0.4009	-0.0117	0.3735	-0.0263	0.3068	-0.1359
439.83	20.97	0.4127	-0.0089	0.4008	-0.0118	0.3735	-0.0263	0.3068	-0.1359
449.83	21.21					0.3735	-0.0263	0.3068	-0.1359
459.83	21.44					0.3735	-0.0263	0.3068	-0.1359
469.83	21.68					0.3735	-0.0263	0.3068	-0.1359
479.83	21.91					0.3735	-0.0263	0.3067	-0.1360
489.83	22.13					0.3735	-0.0263	0.3066	-0.1361
499.83	22.36					0.3734	-0.0264	0.3066	-0.1361
509.83	22.58					0.3734	-0.0264	0.3065	-0.1362
519.83	22.80					0.3735	-0.0263	0.3065	-0.1362
529.83	23.02					0.3735	-0.0263	0.3065	-0.1362
539.83	23.23					0.3735	-0.0263	0.3065	-0.1362
549.83	23.45					0.3734	-0.0264	0.3065	-0.1362
559.83	23.66					0.3735	-0.0263	0.3065	-0.1362
569.83	23.87					0.3735	-0.0263	0.3065	-0.1362
579.83	24.08					0.3735	-0.0263	0.3065	-0.1362
589.83	24.29					0.3734	-0.0264	0.3064	-0.1363
599.83	24.49					0.3734	-0.0264	0.3064	-0.1363
609.83	24.69					0.3735	-0.0263	0.3064	-0.1363
619.83	24.90					0.3734	-0.0264	0.3064	-0.1363
629.83	25.10					0.3734	-0.0264	0.3062	-0.1365
639.83	25.29					0.3734	-0.0264	0.3061	-0.1366
649.83	25.49					0.3734	-0.0264	0.3061	-0.1366
659.83	25.69					0.3735	-0.0263	0.3061	-0.1366
669.83	25.88					0.3735	-0.0263	0.3061	-0.1366
679.83	26.07					0.3735	-0.0263	0.3061	-0.1366
689.83	26.26					0.3735	-0.0263	0.3061	-0.1366
699.83	26.45					0.3735	-0.0263	0.3061	-0.1366
709.83	26.64					0.3734	-0.0264	0.3061	-0.1366
719.83	26.83					0.3734	-0.0264	0.3061	-0.1366
749.83	27.38					0.3734	-0.0264	0.3062	-0.1365
779.83	27.93					0.3734	-0.0264	0.3062	-0.1365
809.83	28.46					0.3734	-0.0264	0.3061	-0.1366
839.83	28.98					0.3735	-0.0263	0.3059	-0.1368
869.83	29.49					0.3735	-0.0263	0.3059	-0.1368
899.83	30.00					0.3735	-0.0263	0.3060	-0.1367
929.83	30.49					0.3735	-0.0263	0.3059	-0.1368
959.83	30.98					0.3735	-0.0263	0.3060	-0.1367
989.83	31.46					0.3735	-0.0263	0.3059	-0.1368
1019.83	31.93					0.3735	-0.0263	0.3060	-0.1367
1049.83	32.40					0.3735	-0.0263	0.3059	-0.1368
1079.83	32.86					0.3735	-0.0263	0.3060	-0.1367
1109.83	33.31					0.3735	-0.0263	0.3060	-0.1367
1139.83	33.76					0.3734	-0.0264	0.3059	-0.1368
1169.83	34.20					0.3734	-0.0264	0.3060	-0.1367
1199.83	34.64					0.3734	-0.0264	0.3059	-0.1368
1229.83	35.07					0.3734	-0.0264	0.3059	-0.1368
1259.83	35.49					0.3734	-0.0264	0.3059	-0.1368
1289.83	35.91					0.3734	-0.0264	0.3059	-0.1368
1319.83	36.33					0.3733	-0.0265	0.3057	-0.1370
1349.83	36.74					0.3734	-0.0264	0.3057	-0.1370
1379.83	37.15					0.3734	-0.0264	0.3057	-0.1370
1409.83	37.55					0.3734	-0.0264	0.3057	-0.1370
1439.83	37.95					0.3734	-0.0264	0.3057	-0.1370
1469.83	38.34							0.3057	-0.1370

Sample: Pond 8E, BH-2 @ 10.2 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
1499.83	38.73					0.3057	-0.1370		
1529.83	39.11					0.3057	-0.1370		
1559.83	39.49					0.3056	-0.1371		
1589.83	39.87					0.3057	-0.1370		
1619.83	40.25					0.3056	-0.1371		
1649.83	40.62					0.3056	-0.1371		
1679.83	40.99					0.3056	-0.1371		
1709.83	41.35					0.3056	-0.1371		
1739.83	41.71					0.3056	-0.1371		
1769.83	42.07					0.3056	-0.1371		
1799.83	42.42					0.3055	-0.1372		

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 8E, BH-3 @ 13.5 feet
Sample Ht.	1.813 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.013 (cu-ft)
Phos Cont.	0.1331 (%)
Init. M.C.	146.41 (%)
Init. M.C. (corr)	145.61 (%)
Final M.C.	112.15 (%)
Final M.C. (corr)	111.55 (%)
Dry Wt. of Soil/f	205.97 (g)
Dry Wt. of Soil/i	205.85 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	10.3
Phos. Wt. (g)	0.01
Dry Wt. (g)	4.18
Dry Wt. + Phos Wt. (g)	4.19
Water Wt. + Phos (g)	6.12
Water Wt. (g)	6.11
(final)	
Total Wet Wt. (g)	25.14
Phos. Wt. (g)	0.03
Dry Wt. (g)	11.85
Dry Wt. + Phos Wt. (g)	11.88
Water Wt. + Phos (g)	13.29
Water Wt. (g)	13.26

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density (pcf)	Void Ratio (e)	Dry Density (pcf)
0.0010	0.3512	0.0000	1.8130	0	4.060	34.41	4.062	34.39
0.0250	0.3504	0.0008	1.8122	0.04	4.057	34.42	4.060	34.41
0.0500	0.3870	0.0204	1.7926	1.13	4.003	34.80	4.005	34.78
0.1000	0.3783	0.0223	1.7907	1.23	3.997	34.84	4.000	34.82
0.2500	0.2889	0.0953	1.7177	5.26	3.794	36.32	3.796	36.30
0.5000	0.1964	0.1761	1.6369	9.71	3.568	38.11	3.571	38.09
1.0000	0.1593	0.2126	1.6004	11.73	3.466	38.98	3.469	38.96
2.0000	0.4235	0.2332	1.5798	12.86	3.409	39.49	3.411	39.47
4.0000	0.2970	0.3394	1.4736	18.72	3.112	42.33	3.115	42.31

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.10	0.00	0.3512	0.0000	0.4074	0.0000	0.3802	0.0000	0.3619	0.0000
0.17	0.41	0.3512	0.0000	0.4074	0.0000	0.3802	0.0000	0.3619	0.0000
0.33	0.58	0.3512	0.0000	0.4067	-0.0007	0.3802	0.0000	0.3628	0.0009
0.50	0.71	0.3512	0.0000	0.4066	-0.0008	0.3794	-0.0008	0.3578	-0.0041
0.67	0.82	0.3512	0.0000	0.4063	-0.0011	0.3792	-0.0010	0.3563	-0.0056
0.83	0.91	0.3512	0.0000	0.4060	-0.0014	0.3790	-0.0012	0.3550	-0.0069
1.00	1.00	0.3512	0.0000	0.4053	-0.0021	0.3787	-0.0015	0.3533	-0.0086
1.17	1.08	0.3512	0.0000	0.4049	-0.0025	0.3785	-0.0017	0.3528	-0.0091
1.33	1.15	0.3512	0.0000	0.4048	-0.0026	0.3783	-0.0019	0.3511	-0.0108
1.50	1.22	0.3512	0.0000	0.4046	-0.0028	0.3783	-0.0019	0.3503	-0.0116
1.67	1.29	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3498	-0.0121
1.83	1.35	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3487	-0.0132
2.00	1.41	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
2.17	1.47	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
2.33	1.53	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
2.50	1.58	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
2.67	1.63	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
2.83	1.68	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.00	1.73	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.17	1.78	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.33	1.83	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.50	1.87	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.67	1.91	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
3.83	1.96	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.00	2.00	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.17	2.04	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.33	2.08	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.50	2.12	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.67	2.16	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
4.83	2.20	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.00	2.24	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.17	2.27	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.33	2.31	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.50	2.35	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.67	2.38	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
5.83	2.42	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.00	2.45	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.17	2.48	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.33	2.52	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.50	2.55	0.3512	0.0000	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.67	2.58	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
6.83	2.61	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.00	2.65	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.17	2.68	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.33	2.71	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.50	2.74	0.3511	-0.0001	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.67	2.77	0.3510	-0.0002	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
7.83	2.80	0.3510	-0.0002	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.00	2.83	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.17	2.86	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.33	2.89	0.3510	-0.0002	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.50	2.92	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.67	2.94	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
8.83	2.97	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.00	3.00	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.17	3.03	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.33	3.06	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.50	3.08	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.67	3.11	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
9.83	3.14	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
10.00	3.16	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
10.17	3.19	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
10.33	3.21	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
10.50	3.24	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
10.67	3.27	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.00	3.32	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.17	3.34	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.33	3.37	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.50	3.39	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.67	3.42	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
11.83	3.44	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.00	3.46	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.17	3.49	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.33	3.51	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.50	3.54	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.67	3.56	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
12.83	3.58	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.00	3.61	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.17	3.63	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.33	3.65	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.50	3.67	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.67	3.70	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
13.83	3.72	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.00	3.74	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.17	3.76	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.33	3.79	0.3508	-0.0004	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.50	3.81	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.67	3.83	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
14.83	3.85	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
15.33	3.92	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
15.83	3.98	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
16.33	4.04	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
16.83	4.10	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
17.33	4.16	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
17.83	4.22	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
18.33	4.28	0.3508	-0.0004	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
18.83	4.34	0.3509	-0.0003	0.4044	-0.0030	0.3783	-0.0019	0.3476	-0.0143
19.33	4.40	0.3508	-0.0004	0.3907	-0.0167	0.3783	-0.0019	0.3476	-0.0143
19.83	4.45	0.3509	-0.0003	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
20.33	4.51	0.3509	-0.0003	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
20.83	4.56	0.3509	-0.0003	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
21.33	4.62	0.3509	-0.0003	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
21.83	4.67	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
22.33	4.73	0.3509	-0.0003	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
22.83	4.78	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
23.33	4.83	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
23.83	4.88	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
24.33	4.93	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
24.83	4.98	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
25.33	5.03	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
25.83	5.08	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
26.33	5.13	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
26.83	5.18	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
27.33	5.23	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
27.83	5.28	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
28.33	5.32	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
28.83	5.37	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
29.33	5.42	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
29.83	5.46	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
30.33	5.51	0.3508	-0.0004	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
30.83	5.55	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
31.33	5.60	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
31.83	5.64	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
32.33	5.69	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
32.83	5.73	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
33.33	5.77	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
33.83	5.82	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
34.33	5.86	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
34.83	5.90	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
35.83	5.99	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
36.33	6.03	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
36.83	6.07	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
37.33	6.11	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
37.83	6.15	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
38.33	6.19	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
38.83	6.23	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
39.33	6.27	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
39.83	6.31	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
40.33	6.35	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
40.83	6.39	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
41.33	6.43	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
41.83	6.47	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
42.33	6.51	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
42.83	6.54	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
43.33	6.58	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
43.83	6.62	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
44.33	6.66	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
44.83	6.70	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
45.33	6.73	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
45.83	6.77	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
46.33	6.81	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
46.83	6.84	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
47.33	6.88	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
47.83	6.92	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
48.33	6.95	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
48.83	6.99	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
49.33	7.02	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
49.83	7.06	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
50.33	7.09	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
50.83	7.13	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
51.33	7.16	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
51.83	7.20	0.3507	-0.0005	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
52.33	7.23	0.3506	-0.0006	0.3906	-0.0168	0.3783	-0.0019	0.3476	-0.0143
52.83	7.27	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
53.33	7.30	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
53.83	7.34	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
54.33	7.37	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
54.83	7.40	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
55.33	7.44	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
55.83	7.47	0.3507	-0.0005	0.3882	-0.0192	0.3783	-0.0019	0.3476	-0.0143
56.33	7.51	0.3507	-0.0005	0.3881	-0.0193	0.3783	-0.0019	0.3476	-0.0143
56.83	7.54	0.3507	-0.0005	0.3881	-0.0193	0.3783	-0.0019	0.2898	-0.0721
57.33	7.57	0.3506	-0.0006	0.3880	-0.0194	0.3783	-0.0019	0.2898	-0.0721
57.83	7.60	0.3507	-0.0005	0.3880	-0.0194	0.3783	-0.0019	0.2898	-0.0721
58.33	7.64	0.3507	-0.0005	0.3880	-0.0194	0.3783	-0.0019	0.2898	-0.0721
58.83	7.67	0.3507	-0.0005	0.3879	-0.0195	0.3783	-0.0019	0.2898	-0.0721
59.33	7.70	0.3506	-0.0006	0.3878	-0.0196	0.3783	-0.0019	0.2898	-0.0721
59.83	7.74	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2898	-0.0721
60.83	7.80	0.3507	-0.0005	0.3870	-0.0204	0.3783	-0.0019	0.2898	-0.0721
61.83	7.86	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2898	-0.0721
62.83	7.93	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
63.83	7.99	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
64.83	8.05	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
65.83	8.11	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
66.83	8.18	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
67.83	8.24	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
68.83	8.30	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
69.83	8.36	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
70.83	8.42	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
71.83	8.48	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
72.83	8.53	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
73.83	8.59	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730
74.83	8.65	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2899	-0.0730

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
76.83	8.77	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
77.83	8.82	0.3506	-0.0006	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
78.83	8.88	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
79.83	8.93	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
80.83	8.99	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
81.83	9.05	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
82.83	9.10	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
83.83	9.16	0.3505	-0.0007	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
84.83	9.21	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
85.83	9.26	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
86.83	9.32	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
87.83	9.37	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
88.83	9.43	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
89.83	9.48	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
90.83	9.53	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
91.83	9.58	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
92.83	9.64	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
93.83	9.69	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
94.83	9.74	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
95.83	9.79	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
96.83	9.84	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
97.83	9.89	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
98.83	9.94	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
99.83	9.99	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
100.83	10.04	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
101.83	10.09	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
102.83	10.14	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
103.83	10.19	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
104.83	10.24	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
105.83	10.29	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
106.83	10.34	0.3504	-0.0008	0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
107.83	10.38			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
108.83	10.43			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
109.83	10.48			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
110.83	10.53			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
111.83	10.58			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
112.83	10.62			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
113.83	10.67			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
114.83	10.72			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
115.83	10.76			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
116.83	10.81			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
117.83	10.86			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
118.83	10.90			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
119.83	10.95			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
129.83	11.39			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
139.83	11.83			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
149.83	12.24			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
159.83	12.64			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
169.83	13.03			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
179.83	13.41			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
189.83	13.78			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
199.83	14.14			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
209.83	14.49			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
219.83	14.83			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
229.83	15.16			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
239.83	15.49			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
249.83	15.81			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
259.83	16.12			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
269.83	16.43			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
279.83	16.73			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
289.83	17.02			0.3870	-0.0204	0.3783	-0.0019	0.2889	-0.0730
299.83	17.32			0.3870	-0.0204			0.2889	-0.0730
309.83	17.60			0.3870	-0.0204			0.2889	-0.0730
319.83	17.88			0.3870	-0.0204			0.2889	-0.0730

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16			0.3870	-0.0204			0.2889	-0.0730
339.83	18.43			0.3870	-0.0204			0.2889	-0.0730
349.83	18.70			0.3870	-0.0204			0.2889	-0.0730
359.83	18.97			0.3870	-0.0204			0.2889	-0.0730
369.83	19.23			0.3870	-0.0204			0.2889	-0.0730
379.83	19.49			0.3870	-0.0204			0.2889	-0.0730
389.83	19.74			0.3870	-0.0204			0.2889	-0.0730
399.83	20.00			0.3870	-0.0204			0.2889	-0.0730
409.83	20.24			0.3870	-0.0204			0.2889	-0.0730
419.83	20.49			0.3870	-0.0204			0.2889	-0.0730
429.83	20.73			0.3870	-0.0204			0.2889	-0.0730
439.83	20.97			0.3870	-0.0204			0.2889	-0.0730
449.83	21.21			0.3870	-0.0204			0.2889	-0.0730
459.83	21.44			0.3870	-0.0204			0.2889	-0.0730
469.83	21.68			0.3870	-0.0204			0.2889	-0.0730
479.83	21.91			0.3870	-0.0204			0.2889	-0.0730
489.83	22.13			0.3870	-0.0204			0.2889	-0.0730
499.83	22.36			0.3870	-0.0204			0.2889	-0.0730
509.83	22.58			0.3870	-0.0204			0.2889	-0.0730
519.83	22.80			0.3870	-0.0204			0.2889	-0.0730
529.83	23.02			0.3870	-0.0204			0.2889	-0.0730
539.83	23.23			0.3870	-0.0204			0.2889	-0.0730
549.83	23.45			0.3870	-0.0204			0.2889	-0.0730
559.83	23.66			0.3870	-0.0204			0.2889	-0.0730
569.83	23.87			0.3870	-0.0204			0.2889	-0.0730
579.83	24.08			0.3870	-0.0204			0.2889	-0.0730
589.83	24.29			0.3870	-0.0204			0.2889	-0.0730
599.83	24.49			0.3870	-0.0204			0.2889	-0.0730
609.83	24.69			0.3870	-0.0204			0.2889	-0.0730
619.83	24.90			0.3870	-0.0204			0.2889	-0.0730
629.83	25.10			0.3870	-0.0204			0.2889	-0.0730
639.83	25.29			0.3870	-0.0204			0.2889	-0.0730
649.83	25.49			0.3870	-0.0204			0.2889	-0.0730
659.83	25.69			0.3870	-0.0204			0.2889	-0.0730
669.83	25.88			0.3870	-0.0204			0.2889	-0.0730
679.83	26.07			0.3870	-0.0204			0.2889	-0.0730
689.83	26.26			0.3870	-0.0204			0.2889	-0.0730
699.83	26.45			0.3870	-0.0204			0.2889	-0.0730
709.83	26.64			0.3870	-0.0204			0.2889	-0.0730
719.83	26.83			0.3870	-0.0204			0.2889	-0.0730
749.83	27.38			0.3870	-0.0204			0.2889	-0.0730
779.83	27.93			0.3870	-0.0204			0.2889	-0.0730
809.83	28.46			0.3870	-0.0204			0.2889	-0.0730
839.83	28.98			0.3870	-0.0204			0.2889	-0.0730
869.83	29.49			0.3870	-0.0204			0.2889	-0.0730
899.83	30.00			0.3870	-0.0204			0.2889	-0.0730
929.83	30.49			0.3870	-0.0204			0.2889	-0.0730
959.83	30.98			0.3870	-0.0204			0.2889	-0.0730
989.83	31.46			0.3870	-0.0204			0.2889	-0.0730
1019.83	31.93			0.3870	-0.0204			0.2889	-0.0730
1049.83	32.40			0.3870	-0.0204			0.2889	-0.0730
1079.83	32.86							0.2889	-0.0730
1109.83	33.31							0.2889	-0.0730
1139.83	33.76							0.2889	-0.0730

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.10	0.00	0.2772	0.0000	0.1958	0.0000	0.4441	0.0000	0.4032	0.0000
0.17	0.41	0.2772	0.0000	0.1958	0.0000	0.4441	0.0000	0.3567	-0.0465
0.33	0.58	0.2718	-0.0054	0.1887	-0.0071	0.4440	-0.0001	0.3565	-0.0467
0.50	0.71	0.2697	-0.0075	0.1831	-0.0127	0.4440	-0.0001	0.3563	-0.0469
0.67	0.82	0.2676	-0.0096	0.1803	-0.0155	0.4412	-0.0029	0.3563	-0.0469
0.83	0.91	0.2653	-0.0119	0.1758	-0.0200	0.4409	-0.0032	0.3334	-0.0698
1.00	1.00	0.2648	-0.0124	0.1733	-0.0225	0.4365	-0.0076	0.3263	-0.0769
1.17	1.08	0.2630	-0.0142	0.1715	-0.0243	0.4337	-0.0104	0.3228	-0.0804
1.33	1.15	0.2617	-0.0155	0.1715	-0.0243	0.4337	-0.0104	0.3181	-0.0851
1.50	1.22	0.2609	-0.0163	0.1678	-0.0280	0.4290	-0.0151	0.3159	-0.0873
1.67	1.29	0.2598	-0.0174	0.1670	-0.0288	0.4281	-0.0160	0.3130	-0.0902
1.83	1.35	0.2593	-0.0179	0.1643	-0.0315	0.4253	-0.0188	0.3102	-0.0930
2.00	1.41	0.2580	-0.0192	0.1628	-0.0330	0.4235	-0.0206	0.3079	-0.0953
2.17	1.47	0.2571	-0.0201	0.1611	-0.0347	0.4235	-0.0206	0.3079	-0.0953
2.33	1.53	0.2571	-0.0201	0.1601	-0.0357	0.4235	-0.0206	0.3079	-0.0953
2.50	1.58	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.3079	-0.0953
2.67	1.63	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.3079	-0.0953
2.83	1.68	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.3079	-0.0953
3.00	1.73	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2975	-0.1057
3.17	1.78	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
3.33	1.83	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
3.50	1.87	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
3.67	1.91	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
3.83	1.96	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.00	2.00	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.17	2.04	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.33	2.08	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.50	2.12	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.67	2.16	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
4.83	2.20	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.00	2.24	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.17	2.27	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.33	2.31	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.50	2.35	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.67	2.38	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
5.83	2.42	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.00	2.45	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.17	2.48	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.33	2.52	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.50	2.55	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.67	2.58	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
6.83	2.61	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.00	2.65	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.17	2.68	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.33	2.71	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.50	2.74	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.67	2.77	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
7.83	2.80	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.00	2.83	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.17	2.86	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.33	2.89	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.50	2.92	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.67	2.94	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
8.83	2.97	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.00	3.00	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.17	3.03	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.33	3.06	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.50	3.08	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.67	3.11	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
9.83	3.14	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
10.00	3.16	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
10.17	3.19	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
10.33	3.21	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
10.50	3.24	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062
10.67	3.27	0.2571	-0.0201	0.1593	-0.0365	0.4235	-0.0206	0.2970	-0.1062

Sample: Pond 8E, BH-3 @ 13.5 feet

Sample: Pond 8E, BH-3 @ 13.5 feet

Sample: Pond 8E, BH-3 @ 13.5 feet

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
339.83	18.43	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
349.83	18.70	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
359.83	18.97	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
369.83	19.23	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
379.83	19.49	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
389.83	19.74	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
399.83	20.00	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
409.83	20.24	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
419.83	20.49	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
429.83	20.73	0.2571	-0.0201	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
439.83	20.97	0.1964	-0.0808	0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
449.83	21.21			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
459.83	21.44			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
469.83	21.68			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
479.83	21.91			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
489.83	22.13			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
499.83	22.36			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
509.83	22.58			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
519.83	22.80			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
529.83	23.02			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
539.83	23.23			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
549.83	23.45			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
559.83	23.66			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
569.83	23.87			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
579.83	24.08			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
589.83	24.29			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
599.83	24.49			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
609.83	24.69			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
619.83	24.90			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
629.83	25.10			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
639.83	25.29			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
649.83	25.49			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
659.83	25.69			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
669.83	25.88			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
679.83	26.07			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
689.83	26.26			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
699.83	26.45			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
709.83	26.64			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
719.83	26.83			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
749.83	27.38			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
779.83	27.93			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
809.83	28.46			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
839.83	28.98			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
869.83	29.49			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
899.83	30.00			0.8000	0.6042	0.4235	-0.0206	0.2970	-0.1062
929.83	30.49					0.4235	-0.0206	0.2970	-0.1062
959.83	30.98					0.4235	-0.0206	0.2970	-0.1062
989.83	31.46					0.4235	-0.0206	0.2970	-0.1062
1019.83	31.93					0.4235	-0.0206	0.2970	-0.1062
1049.83	32.40					0.4235	-0.0206	0.2970	-0.1062
1079.83	32.86					0.4235	-0.0206	0.2970	-0.1062
1109.83	33.31					0.4235	-0.0206	0.2970	-0.1062
1139.83	33.76					0.4235	-0.0206	0.2970	-0.1062
1169.83	34.20					0.4235	-0.0206	0.2970	-0.1062
1199.83	34.64					0.4235	-0.0206	0.2970	-0.1062
1229.83	35.07					0.4235	-0.0206	0.2970	-0.1062
1259.83	35.49					0.4235	-0.0206	0.2970	-0.1062
1289.83	35.91					0.4235	-0.0206	0.2970	-0.1062
1319.83	36.33					0.4235	-0.0206	0.2970	-0.1062
1349.83	36.74					0.4235	-0.0206	0.2970	-0.1062
1379.83	37.15					0.4235	-0.0206	0.2970	-0.1062
1409.83	37.55					0.4235	-0.0206	0.2970	-0.1062
1439.83	37.95					0.4235	-0.0206	0.2970	-0.1062
1469.83	38.34							0.2970	-0.1062

Sample: Pond 8E, BH-3 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
1499.83	38.73					0.2970	-0.1062		
1529.83	39.11					0.2970	-0.1062		
1559.83	39.49					0.2970	-0.1062		
1589.83	39.87					0.2970	-0.1062		
1619.83	40.25					0.2970	-0.1062		
1649.83	40.62					0.2970	-0.1062		
1679.83	40.99					0.2970	-0.1062		
1709.83	41.35					0.2970	-0.1062		
1739.83	41.71					0.2970	-0.1062		
1769.83	42.07					0.2970	-0.1062		
1799.83	42.42					0.2970	-0.1062		

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 8E, BH-5 @ 4.5 feet
Sample Ht.	1.500 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.011 (cu-ft)
Phos Cont.	0.0008 (%)
Init. M.C.	262.45 (%)
Init. M.C. (corr)	262.44 (%)
Final M.C.	125.67 (%)
Final M.C. (corr)	125.67 (%)
Dry Wt. of Soil/f	109.50 (g)
Dry Wt. of Soil/i	103.60 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	19.79
Phos. Wt. (g)	0.00
Dry Wt. (g)	5.46
Dry Wt. + Phos Wt. (g)	5.46
Water Wt. + Phos (g)	14.33
Water Wt. (g)	14.33
(final)	
Total Wet Wt. (g)	23.56
Phos. Wt. (g)	0.00
Dry Wt. (g)	10.44
Dry Wt. + Phos Wt. (g)	10.44
Water Wt. + Phos (g)	13.12
Water Wt. (g)	13.12

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density (pcf)	Void Ratio (e)	Dry Density (pcf)
0.0010	0.4135	0.0000	1.5000	0	6.874	22.11	7.322	20.92
0.0250	0.3718	0.0417	1.4583	2.78	6.655	22.74	7.091	21.52
0.0500	0.3416	0.0719	1.4281	4.79	6.497	23.22	6.923	21.97
0.1000	0.2812	0.1321	1.3679	8.81	6.181	24.25	6.589	22.94
0.2500	0.1740	0.2392	1.2608	15.95	5.618	26.30	5.995	24.89
0.5000	0.0615	0.3516	1.1484	23.44	5.028	28.88	5.371	27.32
1.0000	0.3261	0.4390	1.0610	29.27	4.570	31.26	4.887	29.58
2.0000	0.2216	0.5435	0.9565	36.23	4.021	34.67	4.307	32.81
4.0000	0.1235	0.6416	0.8584	42.77	3.506	38.64	3.763	36.56

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4135	0.0000	0.3718	0.0000	0.3414	0.0000	0.2811	0.0000
0.17	0.41	0.4135	0.0000	0.3714	-0.0004	0.3407	-0.0007	0.2758	-0.0053
0.33	0.58	0.4135	0.0000	0.3709	-0.0009	0.3399	-0.0015	0.2732	-0.0079
0.50	0.71	0.4135	0.0000	0.3706	-0.0012	0.3390	-0.0024	0.2713	-0.0098
0.67	0.82	0.4135	0.0000	0.3702	-0.0016	0.3386	-0.0028	0.2693	-0.0118
0.83	0.91	0.4113	-0.0022	0.3701	-0.0017	0.3378	-0.0036	0.2676	-0.0135
1.00	1.00	0.4135	0.0000	0.3698	-0.0020	0.3372	-0.0042	0.2656	-0.0155
1.17	1.08	0.4135	0.0000	0.3696	-0.0022	0.3366	-0.0048	0.2643	-0.0168
1.33	1.15	0.4135	0.0000	0.3694	-0.0024	0.3363	-0.0051	0.2625	-0.0186
1.50	1.22	0.4135	0.0000	0.3691	-0.0027	0.3357	-0.0057	0.2616	-0.0195
1.67	1.29	0.4084	-0.0051	0.3690	-0.0028	0.3355	-0.0059	0.2601	-0.0210
1.83	1.35	0.4085	-0.0050	0.3690	-0.0028	0.3348	-0.0066	0.2601	-0.0210
2.00	1.41	0.4084	-0.0051	0.3690	-0.0028	0.3345	-0.0069	0.2601	-0.0210
2.17	1.47	0.4083	-0.0052	0.3683	-0.0035	0.3345	-0.0069	0.2569	-0.0242
2.33	1.53	0.4080	-0.0055	0.3681	-0.0037	0.3345	-0.0069	0.2559	-0.0252
2.50	1.58	0.4080	-0.0055	0.3679	-0.0039	0.3332	-0.0082	0.2546	-0.0265
2.67	1.63	0.4078	-0.0057	0.3678	-0.0040	0.3329	-0.0085	0.2537	-0.0274
2.83	1.68	0.4076	-0.0059	0.3678	-0.0040	0.3325	-0.0089	0.2530	-0.0281
3.00	1.73	0.4074	-0.0061	0.3674	-0.0044	0.3323	-0.0091	0.2518	-0.0293
3.17	1.78	0.4072	-0.0063	0.3673	-0.0045	0.3320	-0.0094	0.2513	-0.0298
3.33	1.83	0.4071	-0.0064	0.3671	-0.0047	0.3317	-0.0097	0.2500	-0.0311
3.50	1.87	0.4068	-0.0067	0.3670	-0.0048	0.3313	-0.0101	0.2500	-0.0311
3.67	1.91	0.4067	-0.0068	0.3669	-0.0049	0.3311	-0.0103	0.2500	-0.0311
3.83	1.96	0.4064	-0.0071	0.3666	-0.0052	0.3311	-0.0103	0.2475	-0.0336
4.00	2.00	0.4064	-0.0071	0.3666	-0.0052	0.3311	-0.0103	0.2467	-0.0344
4.17	2.04	0.4064	-0.0071	0.3663	-0.0055	0.3299	-0.0115	0.2457	-0.0354
4.33	2.08	0.4064	-0.0071	0.3663	-0.0055	0.3296	-0.0118	0.2451	-0.0360
4.50	2.12	0.4058	-0.0077	0.3661	-0.0057	0.3291	-0.0123	0.2444	-0.0367
4.67	2.16	0.4056	-0.0079	0.3660	-0.0058	0.3288	-0.0126	0.2436	-0.0375
4.83	2.20	0.4055	-0.0080	0.3659	-0.0059	0.3285	-0.0129	0.2429	-0.0382
5.00	2.24	0.4052	-0.0083	0.3657	-0.0061	0.3281	-0.0133	0.2420	-0.0391
5.17	2.27	0.4051	-0.0084	0.3656	-0.0062	0.3278	-0.0136	0.2420	-0.0391
5.33	2.31	0.4049	-0.0086	0.3655	-0.0063	0.3278	-0.0136	0.2420	-0.0391
5.50	2.35	0.4048	-0.0087	0.3654	-0.0064	0.3278	-0.0136	0.2399	-0.0412
5.67	2.38	0.4047	-0.0088	0.3653	-0.0065	0.3270	-0.0144	0.2394	-0.0417
5.83	2.42	0.4047	-0.0088	0.3652	-0.0066	0.3265	-0.0149	0.2384	-0.0427
6.00	2.45	0.4047	-0.0088	0.3651	-0.0067	0.3263	-0.0151	0.2378	-0.0433
6.17	2.48	0.4041	-0.0094	0.3650	-0.0068	0.3258	-0.0156	0.2372	-0.0439
6.33	2.52	0.4039	-0.0096	0.3649	-0.0069	0.3255	-0.0159	0.2364	-0.0447
6.50	2.55	0.4038	-0.0097	0.3648	-0.0070	0.3252	-0.0162	0.2359	-0.0452
6.67	2.58	0.4035	-0.0100	0.3647	-0.0071	0.3249	-0.0165	0.2351	-0.0460
6.83	2.61	0.4034	-0.0101	0.3647	-0.0071	0.3246	-0.0168	0.2351	-0.0460
7.00	2.65	0.4033	-0.0102	0.3646	-0.0072	0.3246	-0.0168	0.2351	-0.0460
7.17	2.68	0.4031	-0.0104	0.3644	-0.0074	0.3246	-0.0168	0.2334	-0.0477
7.33	2.71	0.4030	-0.0105	0.3644	-0.0074	0.3239	-0.0175	0.2330	-0.0481
7.50	2.74	0.4030	-0.0105	0.3642	-0.0076	0.3237	-0.0177	0.2323	-0.0488
7.67	2.77	0.4030	-0.0105	0.3641	-0.0077	0.3234	-0.0180	0.2318	-0.0493
7.83	2.80	0.4025	-0.0110	0.3640	-0.0078	0.3231	-0.0183	0.2310	-0.0501
8.00	2.83	0.4024	-0.0111	0.3639	-0.0079	0.3230	-0.0184	0.2305	-0.0506
8.17	2.86	0.4022	-0.0113	0.3638	-0.0080	0.3226	-0.0188	0.2298	-0.0513
8.33	2.89	0.4022	-0.0113	0.3637	-0.0081	0.3224	-0.0190	0.2294	-0.0517
8.50	2.92	0.4020	-0.0115	0.3636	-0.0082	0.3221	-0.0193	0.2287	-0.0524
8.67	2.94	0.4019	-0.0116	0.3635	-0.0083	0.3219	-0.0195	0.2283	-0.0528
8.83	2.97	0.4017	-0.0118	0.3633	-0.0085	0.3215	-0.0199	0.2276	-0.0535
9.00	3.00	0.4016	-0.0119	0.3632	-0.0086	0.3213	-0.0201	0.2273	-0.0538
9.17	3.03	0.4014	-0.0121	0.3631	-0.0087	0.3209	-0.0205	0.2267	-0.0544
9.33	3.06	0.4014	-0.0121	0.3630	-0.0088	0.3207	-0.0207	0.2263	-0.0548
9.50	3.08	0.4011	-0.0124	0.3628	-0.0090	0.3203	-0.0211	0.2257	-0.0554
9.67	3.11	0.4010	-0.0125	0.3628	-0.0090	0.3200	-0.0214	0.2254	-0.0557
9.83	3.14	0.4008	-0.0127	0.3626	-0.0092	0.3198	-0.0216	0.2247	-0.0564
10.00	3.16	0.4006	-0.0129	0.3625	-0.0093	0.3195	-0.0219	0.2244	-0.0567
10.17	3.19	0.4005	-0.0130	0.3624	-0.0094	0.3192	-0.0222	0.2238	-0.0573
10.33	3.21	0.4003	-0.0132	0.3623	-0.0095	0.3191	-0.0223	0.2234	-0.0577
10.50	3.24	0.4002	-0.0133	0.3622	-0.0096	0.3187	-0.0227	0.2229	-0.0582
10.67	3.27	0.4001	-0.0134	0.3622	-0.0096	0.3185	-0.0229	0.2224	-0.0587

Sample: Pond 8E, BH-5 @ 4.5 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.4000	-0.0135	0.3621	-0.0097	0.3182	-0.0232	0.2219	-0.0592
11.00	3.32	0.3998	-0.0137	0.3620	-0.0098	0.3180	-0.0234	0.2216	-0.0595
11.17	3.34	0.3997	-0.0138	0.3619	-0.0099	0.3176	-0.0238	0.2210	-0.0601
11.33	3.37	0.3995	-0.0140	0.3619	-0.0099	0.3174	-0.0240	0.2207	-0.0604
11.50	3.39	0.3994	-0.0141	0.3617	-0.0101	0.3172	-0.0242	0.2203	-0.0608
11.67	3.42	0.3993	-0.0142	0.3617	-0.0101	0.3169	-0.0245	0.2200	-0.0611
11.83	3.44	0.3992	-0.0143	0.3616	-0.0102	0.3167	-0.0247	0.2196	-0.0615
12.00	3.46	0.3991	-0.0144	0.3615	-0.0103	0.3165	-0.0249	0.2192	-0.0619
12.17	3.49	0.3989	-0.0146	0.3614	-0.0104	0.3162	-0.0252	0.2189	-0.0622
12.33	3.51	0.3988	-0.0147	0.3613	-0.0105	0.3160	-0.0254	0.2189	-0.0622
12.50	3.54	0.3986	-0.0149	0.3611	-0.0107	0.3157	-0.0257	0.2189	-0.0622
12.67	3.56	0.3985	-0.0150	0.3610	-0.0108	0.3155	-0.0259	0.2180	-0.0631
12.83	3.58	0.3984	-0.0151	0.3609	-0.0109	0.3152	-0.0262	0.2176	-0.0635
13.00	3.61	0.3983	-0.0152	0.3608	-0.0110	0.3152	-0.0262	0.2173	-0.0638
13.17	3.63	0.3981	-0.0154	0.3608	-0.0110	0.3149	-0.0265	0.2169	-0.0642
13.33	3.65	0.3980	-0.0155	0.3607	-0.0111	0.3147	-0.0267	0.2166	-0.0645
13.50	3.67	0.3978	-0.0157	0.3605	-0.0113	0.3145	-0.0269	0.2161	-0.0650
13.67	3.70	0.3978	-0.0157	0.3604	-0.0114	0.3144	-0.0270	0.2158	-0.0653
13.83	3.72	0.3977	-0.0158	0.3603	-0.0115	0.3141	-0.0273	0.2153	-0.0658
14.00	3.74	0.3976	-0.0159	0.3601	-0.0117	0.3138	-0.0276	0.2151	-0.0660
14.17	3.76	0.3975	-0.0160	0.3600	-0.0118	0.3136	-0.0278	0.2146	-0.0665
14.33	3.79	0.3974	-0.0161	0.3600	-0.0118	0.3135	-0.0279	0.2144	-0.0667
14.50	3.81	0.3972	-0.0163	0.3598	-0.0120	0.3132	-0.0282	0.2140	-0.0671
14.67	3.83	0.3971	-0.0164	0.3597	-0.0121	0.3130	-0.0284	0.2137	-0.0674
14.83	3.85	0.3970	-0.0165	0.3595	-0.0123	0.3128	-0.0286	0.2132	-0.0679
15.33	3.92	0.3966	-0.0169	0.3592	-0.0126	0.3123	-0.0291	0.2122	-0.0689
15.83	3.98	0.3962	-0.0173	0.3588	-0.0130	0.3117	-0.0297	0.2112	-0.0699
16.33	4.04	0.3960	-0.0175	0.3585	-0.0133	0.3112	-0.0302	0.2104	-0.0707
16.83	4.10	0.3955	-0.0180	0.3583	-0.0135	0.3107	-0.0307	0.2095	-0.0716
17.33	4.16	0.3953	-0.0182	0.3581	-0.0137	0.3102	-0.0312	0.2087	-0.0724
17.83	4.22	0.3949	-0.0186	0.3579	-0.0139	0.3097	-0.0317	0.2079	-0.0732
18.33	4.28	0.3946	-0.0189	0.3577	-0.0141	0.3091	-0.0323	0.2072	-0.0739
18.83	4.34	0.3943	-0.0192	0.3576	-0.0142	0.3083	-0.0331	0.2065	-0.0746
19.33	4.40	0.3940	-0.0195	0.3574	-0.0144	0.3078	-0.0336	0.2059	-0.0752
19.83	4.45	0.3937	-0.0198	0.3572	-0.0146	0.3072	-0.0342	0.2052	-0.0759
20.33	4.51	0.3934	-0.0201	0.3570	-0.0148	0.3069	-0.0345	0.2045	-0.0766
20.83	4.56	0.3931	-0.0204	0.3569	-0.0149	0.3065	-0.0349	0.2040	-0.0771
21.33	4.62	0.3929	-0.0206	0.3567	-0.0151	0.3063	-0.0351	0.2034	-0.0777
21.83	4.67	0.3926	-0.0209	0.3565	-0.0153	0.3059	-0.0355	0.2028	-0.0783
22.33	4.73	0.3923	-0.0212	0.3563	-0.0155	0.3056	-0.0358	0.2024	-0.0787
22.83	4.78	0.3921	-0.0214	0.3562	-0.0156	0.3053	-0.0361	0.2019	-0.0792
23.33	4.83	0.3919	-0.0216	0.3561	-0.0157	0.3049	-0.0365	0.2016	-0.0795
23.83	4.88	0.3915	-0.0220	0.3559	-0.0159	0.3046	-0.0368	0.2011	-0.0800
24.33	4.93	0.3914	-0.0221	0.3558	-0.0160	0.3043	-0.0371	0.2008	-0.0803
24.83	4.98	0.3911	-0.0224	0.3556	-0.0162	0.3041	-0.0373	0.2004	-0.0807
25.33	5.03	0.3909	-0.0226	0.3554	-0.0164	0.3039	-0.0375	0.2001	-0.0810
25.83	5.08	0.3907	-0.0228	0.3553	-0.0165	0.3035	-0.0379	0.1998	-0.0813
26.33	5.13	0.3905	-0.0230	0.3552	-0.0166	0.3033	-0.0381	0.1996	-0.0815
26.83	5.18	0.3902	-0.0233	0.3550	-0.0168	0.3030	-0.0384	0.1993	-0.0818
27.33	5.23	0.3899	-0.0236	0.3548	-0.0170	0.3027	-0.0387	0.1990	-0.0821
27.83	5.28	0.3898	-0.0237	0.3546	-0.0172	0.3025	-0.0389	0.1988	-0.0823
28.33	5.32	0.3896	-0.0239	0.3545	-0.0173	0.3022	-0.0392	0.1987	-0.0824
28.83	5.37	0.3893	-0.0242	0.3542	-0.0176	0.3019	-0.0395	0.1985	-0.0826
29.33	5.42	0.3891	-0.0244	0.3540	-0.0178	0.3018	-0.0396	0.1982	-0.0829
29.83	5.46	0.3888	-0.0247	0.3538	-0.0180	0.3016	-0.0398	0.1980	-0.0831
30.33	5.51	0.3886	-0.0249	0.3537	-0.0181	0.3013	-0.0401	0.1978	-0.0833
30.83	5.55	0.3884	-0.0251	0.3536	-0.0182	0.3009	-0.0405	0.1975	-0.0836
31.33	5.60	0.3883	-0.0252	0.3535	-0.0183	0.3005	-0.0409	0.1974	-0.0837
31.83	5.64	0.3881	-0.0254	0.3534	-0.0184	0.3003	-0.0411	0.1972	-0.0839
32.33	5.69	0.3879	-0.0256	0.3533	-0.0185	0.3001	-0.0413	0.1970	-0.0841
32.83	5.73	0.3877	-0.0258	0.3532	-0.0186	0.2999	-0.0415	0.1968	-0.0843
33.33	5.77	0.3875	-0.0260	0.3531	-0.0187	0.2997	-0.0417	0.1966	-0.0845
33.83	5.82	0.3874	-0.0261	0.3529	-0.0189	0.2994	-0.0420	0.1964	-0.0847
34.33	5.86	0.3872	-0.0263	0.3529	-0.0189	0.2993	-0.0421	0.1962	-0.0849
34.83	5.90	0.3870	-0.0265	0.3527	-0.0191	0.2991	-0.0423	0.1960	-0.0851

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3868	-0.0267	0.3525	-0.0193	0.2989	-0.0425	0.1958	-0.0853
35.83	5.99	0.3867	-0.0268	0.3524	-0.0194	0.2987	-0.0427	0.1956	-0.0855
36.33	6.03	0.3865	-0.0270	0.3522	-0.0196	0.2986	-0.0428	0.1955	-0.0856
36.83	6.07	0.3863	-0.0272	0.3521	-0.0197	0.2985	-0.0429	0.1953	-0.0858
37.33	6.11	0.3862	-0.0273	0.3521	-0.0197	0.2984	-0.0430	0.1952	-0.0859
37.83	6.15	0.3860	-0.0275	0.3519	-0.0199	0.2982	-0.0432	0.1950	-0.0861
38.33	6.19	0.3859	-0.0276	0.3517	-0.0201	0.2981	-0.0433	0.1949	-0.0862
38.83	6.23	0.3858	-0.0277	0.3515	-0.0203	0.2980	-0.0434	0.1948	-0.0863
39.33	6.27	0.3857	-0.0278	0.3514	-0.0204	0.2979	-0.0435	0.1946	-0.0865
39.83	6.31	0.3856	-0.0279	0.3512	-0.0206	0.2978	-0.0436	0.1944	-0.0867
40.33	6.35	0.3854	-0.0281	0.3510	-0.0208	0.2977	-0.0437	0.1943	-0.0868
40.83	6.39	0.3853	-0.0282	0.3507	-0.0211	0.2976	-0.0438	0.1941	-0.0870
41.33	6.43	0.3852	-0.0283	0.3506	-0.0212	0.2975	-0.0439	0.1940	-0.0871
41.83	6.47	0.3852	-0.0283	0.3505	-0.0213	0.2974	-0.0440	0.1939	-0.0872
42.33	6.51	0.3851	-0.0284	0.3504	-0.0214	0.2973	-0.0441	0.1937	-0.0874
42.83	6.54	0.3849	-0.0286	0.3503	-0.0215	0.2971	-0.0443	0.1936	-0.0875
43.33	6.58	0.3849	-0.0286	0.3502	-0.0216	0.2971	-0.0443	0.1934	-0.0877
43.83	6.62	0.3847	-0.0288	0.3500	-0.0218	0.2970	-0.0444	0.1933	-0.0878
44.33	6.66	0.3846	-0.0289	0.3500	-0.0218	0.2968	-0.0446	0.1932	-0.0879
44.83	6.70	0.3845	-0.0290	0.3499	-0.0219	0.2967	-0.0447	0.1930	-0.0881
45.33	6.73	0.3844	-0.0291	0.3498	-0.0220	0.2965	-0.0449	0.1928	-0.0883
45.83	6.77	0.3843	-0.0292	0.3498	-0.0220	0.2964	-0.0450	0.1927	-0.0884
46.33	6.81	0.3842	-0.0293	0.3498	-0.0220	0.2963	-0.0451	0.1925	-0.0886
46.83	6.84	0.3840	-0.0295	0.3497	-0.0221	0.2962	-0.0452	0.1924	-0.0887
47.33	6.88	0.3839	-0.0296	0.3497	-0.0221	0.2960	-0.0454	0.1923	-0.0888
47.83	6.92	0.3837	-0.0298	0.3496	-0.0222	0.2959	-0.0455	0.1922	-0.0889
48.33	6.95	0.3836	-0.0299	0.3496	-0.0222	0.2958	-0.0456	0.1920	-0.0891
48.83	6.99	0.3835	-0.0300	0.3495	-0.0223	0.2957	-0.0457	0.1919	-0.0892
49.33	7.02	0.3834	-0.0301	0.3495	-0.0223	0.2955	-0.0459	0.1918	-0.0893
49.83	7.06	0.3833	-0.0302	0.3494	-0.0224	0.2955	-0.0459	0.1917	-0.0894
50.33	7.09	0.3832	-0.0303	0.3494	-0.0224	0.2954	-0.0460	0.1916	-0.0895
50.83	7.13	0.3831	-0.0304	0.3494	-0.0224	0.2953	-0.0461	0.1915	-0.0896
51.33	7.16	0.3830	-0.0305	0.3493	-0.0225	0.2952	-0.0462	0.1913	-0.0898
51.83	7.20	0.3829	-0.0306	0.3493	-0.0225	0.2951	-0.0463	0.1912	-0.0899
52.33	7.23	0.3828	-0.0307	0.3493	-0.0225	0.2949	-0.0465	0.1910	-0.0901
52.83	7.27	0.3827	-0.0308	0.3492	-0.0226	0.2948	-0.0466	0.1909	-0.0902
53.33	7.30	0.3827	-0.0308	0.3492	-0.0226	0.2947	-0.0467	0.1909	-0.0902
53.83	7.34	0.3826	-0.0309	0.3492	-0.0226	0.2947	-0.0467	0.1907	-0.0904
54.33	7.37	0.3824	-0.0311	0.3491	-0.0227	0.2946	-0.0468	0.1906	-0.0905
54.83	7.40	0.3823	-0.0312	0.3491	-0.0227	0.2945	-0.0469	0.1905	-0.0906
55.33	7.44	0.3822	-0.0313	0.3491	-0.0227	0.2944	-0.0470	0.1904	-0.0907
55.83	7.47	0.3821	-0.0314	0.3491	-0.0227	0.2943	-0.0471	0.1904	-0.0907
56.33	7.51	0.3820	-0.0315	0.3490	-0.0228	0.2942	-0.0472	0.1903	-0.0908
56.83	7.54	0.3820	-0.0315	0.3490	-0.0228	0.2941	-0.0473	0.1902	-0.0909
57.33	7.57	0.3820	-0.0315	0.3490	-0.0228	0.2940	-0.0474	0.1901	-0.0910
57.83	7.60	0.3819	-0.0316	0.3490	-0.0228	0.2939	-0.0475	0.1901	-0.0910
58.33	7.64	0.3818	-0.0317	0.3490	-0.0228	0.2939	-0.0475	0.1900	-0.0911
58.83	7.67	0.3817	-0.0318	0.3490	-0.0228	0.2938	-0.0476	0.1898	-0.0913
59.33	7.70	0.3816	-0.0319	0.3489	-0.0229	0.2938	-0.0476	0.1898	-0.0913
59.83	7.74	0.3815	-0.0320	0.3489	-0.0229	0.2936	-0.0478	0.1896	-0.0915
60.83	7.80	0.3813	-0.0322	0.3488	-0.0230	0.2935	-0.0479	0.1894	-0.0917
61.83	7.86	0.3811	-0.0324	0.3487	-0.0231	0.2933	-0.0481	0.1893	-0.0918
62.83	7.93	0.3809	-0.0326	0.3486	-0.0232	0.2932	-0.0482	0.1890	-0.0921
63.83	7.99	0.3808	-0.0327	0.3485	-0.0233	0.2931	-0.0483	0.1888	-0.0923
64.83	8.05	0.3806	-0.0329	0.3484	-0.0234	0.2929	-0.0485	0.1886	-0.0925
65.83	8.11	0.3805	-0.0330	0.3483	-0.0235	0.2927	-0.0487	0.1885	-0.0926
66.83	8.18	0.3805	-0.0330	0.3482	-0.0236	0.2925	-0.0489	0.1882	-0.0929
67.83	8.24	0.3804	-0.0331	0.3482	-0.0236	0.2924	-0.0490	0.1880	-0.0931
68.83	8.30	0.3803	-0.0332	0.3481	-0.0237	0.2922	-0.0492	0.1878	-0.0933
69.83	8.36	0.3801	-0.0334	0.3480	-0.0238	0.2920	-0.0494	0.1876	-0.0935
70.83	8.42	0.3800	-0.0335	0.3476	-0.0242	0.2918	-0.0496	0.1874	-0.0937
71.83	8.48	0.3798	-0.0337	0.3474	-0.0244	0.2916	-0.0498	0.1872	-0.0939
72.83	8.53	0.3797	-0.0338	0.3474	-0.0244	0.2916	-0.0498	0.1870	-0.0941
73.83	8.59	0.3793	-0.0342	0.3474	-0.0244	0.2914	-0.0500	0.1869	-0.0942
74.83	8.65	0.3793	-0.0342	0.3473	-0.0245	0.2913	-0.0501	0.1868	-0.0943

Sample: Pond 8E, BH-5 @ 4.5 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.3793	-0.0342	0.3472	-0.0246	0.2912	-0.0502	0.1863	-0.0948
76.83	8.77	0.3792	-0.0343	0.3472	-0.0246	0.2910	-0.0504	0.1864	-0.0947
77.83	8.82	0.3791	-0.0344	0.3471	-0.0247	0.2909	-0.0505	0.1863	-0.0948
78.83	8.88	0.3789	-0.0346	0.3470	-0.0248	0.2908	-0.0506	0.1862	-0.0949
79.83	8.93	0.3789	-0.0346	0.3469	-0.0249	0.2908	-0.0506	0.1862	-0.0949
80.83	8.99	0.3788	-0.0347	0.3468	-0.0250	0.2908	-0.0506	0.1861	-0.0950
81.83	9.05	0.3786	-0.0349	0.3467	-0.0251	0.2907	-0.0507	0.1860	-0.0951
82.83	9.10	0.3785	-0.0350	0.3466	-0.0252	0.2906	-0.0508	0.1859	-0.0952
83.83	9.16	0.3783	-0.0352	0.3466	-0.0252	0.2906	-0.0508	0.1858	-0.0953
84.83	9.21	0.3782	-0.0353	0.3465	-0.0253	0.2905	-0.0509	0.1857	-0.0954
85.83	9.26	0.3781	-0.0354	0.3464	-0.0254	0.2905	-0.0509	0.1856	-0.0955
86.83	9.32	0.3780	-0.0355	0.3464	-0.0254	0.2903	-0.0511	0.1855	-0.0956
87.83	9.37	0.3780	-0.0355	0.3463	-0.0255	0.2903	-0.0511	0.1854	-0.0957
88.83	9.43	0.3778	-0.0357	0.3462	-0.0256	0.2902	-0.0512	0.1853	-0.0958
89.83	9.48	0.3778	-0.0357	0.3461	-0.0257	0.2902	-0.0512	0.1852	-0.0959
90.83	9.53	0.3776	-0.0359	0.3460	-0.0258	0.2901	-0.0513	0.1851	-0.0960
91.83	9.58	0.3775	-0.0360	0.3459	-0.0259	0.2900	-0.0514	0.1849	-0.0962
92.83	9.64	0.3773	-0.0362	0.3458	-0.0260	0.2900	-0.0514	0.1846	-0.0965
93.83	9.69	0.3773	-0.0362	0.3458	-0.0260	0.2900	-0.0514	0.1842	-0.0969
94.83	9.74	0.3772	-0.0363	0.3458	-0.0260	0.2900	-0.0514	0.1840	-0.0971
95.83	9.79	0.3771	-0.0364	0.3456	-0.0262	0.2899	-0.0515	0.1839	-0.0972
96.83	9.84	0.3771	-0.0364	0.3456	-0.0262	0.2899	-0.0515	0.1838	-0.0973
97.83	9.89	0.3770	-0.0365	0.3454	-0.0264	0.2898	-0.0516	0.1836	-0.0975
98.83	9.94	0.3769	-0.0366	0.3454	-0.0264	0.2899	-0.0515	0.1836	-0.0975
99.83	9.99	0.3769	-0.0366	0.3452	-0.0266	0.2899	-0.0515	0.1836	-0.0975
100.83	10.04	0.3768	-0.0367	0.3451	-0.0267	0.2896	-0.0518	0.1836	-0.0975
101.83	10.09	0.3768	-0.0367	0.3451	-0.0267	0.2894	-0.0520	0.1835	-0.0976
102.83	10.14	0.3767	-0.0368	0.3450	-0.0268	0.2893	-0.0521	0.1834	-0.0977
103.83	10.19	0.3767	-0.0368	0.3449	-0.0269	0.2893	-0.0521	0.1834	-0.0977
104.83	10.24	0.3767	-0.0368	0.3449	-0.0269	0.2893	-0.0521	0.1833	-0.0978
105.83	10.29	0.3766	-0.0369	0.3448	-0.0270	0.2893	-0.0521	0.1832	-0.0979
106.83	10.34	0.3765	-0.0370	0.3448	-0.0270	0.2893	-0.0521	0.1832	-0.0979
107.83	10.38	0.3765	-0.0370	0.3448	-0.0270	0.2893	-0.0521	0.1831	-0.0980
108.83	10.43	0.3765	-0.0370	0.3447	-0.0271	0.2893	-0.0521	0.1831	-0.0980
109.83	10.48	0.3764	-0.0371	0.3447	-0.0271	0.2892	-0.0522	0.1830	-0.0981
110.83	10.53	0.3764	-0.0371	0.3447	-0.0271	0.2892	-0.0522	0.1830	-0.0981
111.83	10.58	0.3763	-0.0372	0.3446	-0.0272	0.2892	-0.0522	0.1829	-0.0982
112.83	10.62	0.3763	-0.0372	0.3446	-0.0272	0.2892	-0.0522	0.1828	-0.0983
113.83	10.67	0.3763	-0.0372	0.3445	-0.0273	0.2892	-0.0522	0.1823	-0.0988
114.83	10.72	0.3762	-0.0373	0.3445	-0.0273	0.2892	-0.0522	0.1822	-0.0989
115.83	10.76	0.3761	-0.0374	0.3444	-0.0274	0.2891	-0.0523	0.1822	-0.0989
116.83	10.81	0.3761	-0.0374	0.3444	-0.0274	0.2891	-0.0523	0.1822	-0.0989
117.83	10.86	0.3758	-0.0377	0.3442	-0.0276	0.2890	-0.0524	0.1822	-0.0989
118.83	10.90	0.3757	-0.0378	0.3439	-0.0279	0.2890	-0.0524	0.1822	-0.0989
119.83	10.95	0.3757	-0.0378	0.3439	-0.0279	0.2888	-0.0526	0.1822	-0.0989
129.83	11.39	0.3751	-0.0384	0.3435	-0.0283	0.2883	-0.0531	0.1816	-0.0995
139.83	11.83	0.3747	-0.0388	0.3429	-0.0289	0.2880	-0.0534	0.1811	-0.1000
149.83	12.24	0.3745	-0.0390	0.3422	-0.0296	0.2878	-0.0536	0.1807	-0.1004
159.83	12.64	0.3744	-0.0391	0.3419	-0.0299	0.2876	-0.0538	0.1799	-0.1012
169.83	13.03	0.3741	-0.0394	0.3416	-0.0302	0.2874	-0.0540	0.1797	-0.1014
179.83	13.41	0.3740	-0.0395			0.2870	-0.0544	0.1793	-0.1018
189.83	13.78	0.3738	-0.0397			0.2869	-0.0545	0.1790	-0.1021
199.83	14.14	0.3737	-0.0398			0.2867	-0.0547	0.1787	-0.1024
209.83	14.49	0.3734	-0.0401			0.2865	-0.0549	0.1784	-0.1027
219.83	14.83	0.3731	-0.0404			0.2863	-0.0551	0.1783	-0.1028
229.83	15.16	0.3728	-0.0407			0.2861	-0.0553	0.1781	-0.1030
239.83	15.49	0.3724	-0.0411			0.2860	-0.0554	0.1779	-0.1032
249.83	15.81	0.3721	-0.0414			0.2859	-0.0555	0.1777	-0.1034
259.83	16.12	0.3718	-0.0417			0.2857	-0.0557	0.1775	-0.1036
269.83	16.43	0.3718	-0.0417			0.2856	-0.0558	0.1774	-0.1037
279.83	16.73	0.3718	-0.0417			0.2855	-0.0559	0.1771	-0.1040
289.83	17.02	0.3718	-0.0417			0.2853	-0.0561	0.1769	-0.1042
299.83	17.32	0.3718	-0.0417			0.2850	-0.0564	0.1767	-0.1044
309.83	17.60	0.3718	-0.0417			0.2850	-0.0564	0.1765	-0.1046
319.83	17.88					0.2847	-0.0567	0.1762	-0.1049

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.2847	-0.0567	0.1761	-0.1050
339.83	18.43					0.2845	-0.0569	0.1760	-0.1051
349.83	18.70					0.2845	-0.0569	0.1758	-0.1053
359.83	18.97					0.2844	-0.0570	0.1757	-0.1054
369.83	19.23					0.2843	-0.0571	0.1756	-0.1055
379.83	19.49					0.2843	-0.0571	0.1754	-0.1057
389.83	19.74					0.2842	-0.0572	0.1752	-0.1059
399.83	20.00					0.2841	-0.0573	0.1751	-0.1060
409.83	20.24					0.2841	-0.0573	0.1750	-0.1061
419.83	20.49					0.2840	-0.0574	0.1748	-0.1063
429.83	20.73					0.2837	-0.0577	0.1747	-0.1064
439.83	20.97					0.2837	-0.0577	0.1746	-0.1065
449.83	21.21					0.2837	-0.0577	0.1745	-0.1066
459.83	21.44					0.2836	-0.0578	0.1744	-0.1067
469.83	21.68					0.2834	-0.0580	0.1743	-0.1068
479.83	21.91					0.2833	-0.0581	0.1743	-0.1068
489.83	22.13					0.2832	-0.0582	0.1741	-0.1070
499.83	22.36					0.2832	-0.0582	0.1740	-0.1071
509.83	22.58					0.2831	-0.0583	0.1740	-0.1071
519.83	22.80					0.2831	-0.0583		
529.83	23.02					0.2829	-0.0585		
539.83	23.23					0.2827	-0.0587		
549.83	23.45					0.2827	-0.0587		
559.83	23.66					0.2823	-0.0591		
569.83	23.87					0.2822	-0.0592		
579.83	24.08					0.2823	-0.0591		
589.83	24.29					0.2823	-0.0591		
599.83	24.49					0.2822	-0.0592		
609.83	24.69					0.2822	-0.0592		
619.83	24.90					0.2822	-0.0592		
629.83	25.10					0.2821	-0.0593		
639.83	25.29					0.2821	-0.0593		
649.83	25.49					0.2821	-0.0593		
659.83	25.69					0.2819	-0.0595		
669.83	25.88					0.2819	-0.0595		
679.83	26.07					0.2819	-0.0595		
689.83	26.26					0.2818	-0.0596		
699.83	26.45					0.2818	-0.0596		
709.83	26.64					0.2817	-0.0597		
719.83	26.83					0.2817	-0.0597		
749.83	27.38					0.2816	-0.0598		
779.83	27.93					0.2813	-0.0601		
809.83	28.46					0.2813	-0.0601		
839.83	28.98					0.2812	-0.0602		

Sample: Pond 8E, BH-5 @ 4.5 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.1739	0.0000	0.4135	0.0000	0.3261	0.0000	0.2216	0.0000
0.17	0.41	0.1739	0.0000	0.4135	0.0000	0.3260	-0.0001	0.2216	0.0000
0.33	0.58	0.1739	0.0000	0.4135	0.0000	0.3261	0.0000	0.2216	0.0000
0.50	0.71	0.1649	-0.0090	0.4135	0.0000	0.3228	-0.0033	0.2216	0.0000
0.67	0.82	0.1623	-0.0116	0.4135	0.0000	0.3143	-0.0118	0.2216	0.0000
0.83	0.91	0.1585	-0.0154	0.4135	0.0000	0.3112	-0.0149	0.2155	-0.0061
1.00	1.00	0.1585	-0.0154	0.4135	0.0000	0.3073	-0.0188	0.2094	-0.0122
1.17	1.08	0.1585	-0.0154	0.4125	-0.0010	0.3053	-0.0208	0.2067	-0.0149
1.33	1.15	0.1531	-0.0208	0.4100	-0.0035	0.3024	-0.0237	0.2035	-0.0181
1.50	1.22	0.1514	-0.0225	0.4086	-0.0049	0.3008	-0.0253	0.2014	-0.0202
1.67	1.29	0.1495	-0.0244	0.4065	-0.0070	0.2985	-0.0276	0.1989	-0.0227
1.83	1.35	0.1484	-0.0255	0.4052	-0.0083	0.2971	-0.0290	0.1975	-0.0241
2.00	1.41	0.1468	-0.0271	0.4035	-0.0100	0.2947	-0.0314	0.1951	-0.0265
2.17	1.47	0.1457	-0.0282	0.4024	-0.0111	0.2932	-0.0329	0.1939	-0.0277
2.33	1.53	0.1444	-0.0295	0.4008	-0.0127	0.2912	-0.0349	0.1920	-0.0296
2.50	1.58	0.1433	-0.0306	0.3997	-0.0138	0.2900	-0.0361	0.1910	-0.0306
2.67	1.63	0.1420	-0.0319	0.3983	-0.0152	0.2884	-0.0377	0.1892	-0.0324
2.83	1.68	0.1411	-0.0328	0.3974	-0.0161	0.2872	-0.0389	0.1881	-0.0335
3.00	1.73	0.1398	-0.0341	0.3962	-0.0173	0.2855	-0.0406	0.1865	-0.0351
3.17	1.78	0.1389	-0.0350	0.3954	-0.0181	0.2855	-0.0406	0.1854	-0.0362
3.33	1.83	0.1377	-0.0362	0.3942	-0.0193	0.2855	-0.0406	0.1842	-0.0374
3.50	1.87	0.1370	-0.0369	0.3934	-0.0201	0.2821	-0.0440	0.1832	-0.0384
3.67	1.91	0.1357	-0.0382	0.3923	-0.0212	0.2812	-0.0449	0.1818	-0.0398
3.83	1.96	0.1350	-0.0389	0.3915	-0.0220	0.2799	-0.0462	0.1810	-0.0406
4.00	2.00	0.1339	-0.0400	0.3904	-0.0231	0.2790	-0.0471	0.1799	-0.0417
4.17	2.04	0.1331	-0.0408	0.3897	-0.0238	0.2778	-0.0483	0.1790	-0.0426
4.33	2.08	0.1321	-0.0418	0.3887	-0.0248	0.2770	-0.0491	0.1779	-0.0437
4.50	2.12	0.1314	-0.0425	0.3881	-0.0254	0.2758	-0.0503	0.1771	-0.0445
4.67	2.16	0.1304	-0.0435	0.3872	-0.0263	0.2751	-0.0510	0.1760	-0.0456
4.83	2.20	0.1297	-0.0442	0.3866	-0.0269	0.2739	-0.0522	0.1753	-0.0463
5.00	2.24	0.1288	-0.0451	0.3856	-0.0279	0.2732	-0.0529	0.1744	-0.0472
5.17	2.27	0.1283	-0.0456	0.3851	-0.0284	0.2721	-0.0540	0.1738	-0.0478
5.33	2.31	0.1273	-0.0466	0.3842	-0.0293	0.2714	-0.0547	0.1728	-0.0488
5.50	2.35	0.1268	-0.0471	0.3836	-0.0299	0.2704	-0.0557	0.1723	-0.0493
5.67	2.38	0.1258	-0.0481	0.3828	-0.0307	0.2698	-0.0563	0.1715	-0.0501
5.83	2.42	0.1252	-0.0487	0.3823	-0.0312	0.2689	-0.0572	0.1709	-0.0507
6.00	2.45	0.1244	-0.0495	0.3815	-0.0320	0.2684	-0.0577	0.1701	-0.0515
6.17	2.48	0.1239	-0.0500	0.3811	-0.0324	0.2676	-0.0585	0.1695	-0.0521
6.33	2.52	0.1230	-0.0509	0.3805	-0.0330	0.2670	-0.0591	0.1688	-0.0528
6.50	2.55	0.1225	-0.0514	0.3801	-0.0334	0.2662	-0.0599	0.1682	-0.0534
6.67	2.58	0.1217	-0.0522	0.3794	-0.0341	0.2656	-0.0605	0.1675	-0.0541
6.83	2.61	0.1211	-0.0528	0.3789	-0.0346	0.2648	-0.0613	0.1671	-0.0545
7.00	2.65	0.1204	-0.0535	0.3784	-0.0351	0.2643	-0.0618	0.1665	-0.0551
7.17	2.68	0.1200	-0.0539	0.3779	-0.0356	0.2636	-0.0625	0.1660	-0.0556
7.33	2.71	0.1193	-0.0546	0.3772	-0.0363	0.2631	-0.0630	0.1654	-0.0562
7.50	2.74	0.1188	-0.0551	0.3768	-0.0367	0.2625	-0.0636	0.1650	-0.0566
7.67	2.77	0.1182	-0.0557	0.3761	-0.0374	0.2621	-0.0640	0.1644	-0.0572
7.83	2.80	0.1177	-0.0562	0.3757	-0.0378	0.2615	-0.0646	0.1640	-0.0576
8.00	2.83	0.1170	-0.0569	0.3751	-0.0384	0.2610	-0.0651	0.1634	-0.0582
8.17	2.86	0.1165	-0.0574	0.3748	-0.0387	0.2605	-0.0656	0.1631	-0.0585
8.33	2.89	0.1158	-0.0581	0.3742	-0.0393	0.2601	-0.0660	0.1627	-0.0589
8.50	2.92	0.1154	-0.0585	0.3739	-0.0396	0.2595	-0.0666	0.1620	-0.0596
8.67	2.94	0.1148	-0.0591	0.3734	-0.0401	0.2593	-0.0668	0.1618	-0.0598
8.83	2.97	0.1146	-0.0593	0.3730	-0.0405	0.2587	-0.0674	0.1618	-0.0598
9.00	3.00	0.1139	-0.0600	0.3726	-0.0409	0.2584	-0.0677	0.1618	-0.0598
9.17	3.03	0.1135	-0.0604	0.3722	-0.0413	0.2579	-0.0682	0.1618	-0.0598
9.33	3.06	0.1133	-0.0606	0.3718	-0.0417	0.2576	-0.0685	0.1618	-0.0598
9.50	3.08	0.1133	-0.0606	0.3714	-0.0421	0.2570	-0.0691	0.1596	-0.0620
9.67	3.11	0.1122	-0.0617	0.3710	-0.0425	0.2567	-0.0694	0.1594	-0.0622
9.83	3.14	0.1118	-0.0621	0.3706	-0.0429	0.2562	-0.0699	0.1588	-0.0628
10.00	3.16	0.1113	-0.0626	0.3702	-0.0433	0.2559	-0.0702	0.1586	-0.0630
10.17	3.19	0.1110	-0.0629	0.3698	-0.0437	0.2554	-0.0707	0.1581	-0.0635
10.33	3.21	0.1104	-0.0635	0.3694	-0.0441	0.2552	-0.0709	0.1579	-0.0637
10.50	3.24	0.1100	-0.0639	0.3691	-0.0444	0.2547	-0.0714	0.1575	-0.0641
10.67	3.27	0.1095	-0.0644	0.3687	-0.0448	0.2545	-0.0716	0.1572	-0.0644

Sample: Pond 8E, BH-5 @ 4.5 feet

Time 'minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.1091	-0.0648	0.3684	-0.0451	0.2541	-0.0720	0.1569	-0.0647
11.00	3.32	0.1087	-0.0652	0.3679	-0.0456	0.2538	-0.0723	0.1567	-0.0649
11.17	3.34	0.1083	-0.0656	0.3677	-0.0458	0.2535	-0.0726	0.1566	-0.0650
11.33	3.37	0.1078	-0.0661	0.3672	-0.0463	0.2532	-0.0729	0.1566	-0.0650
11.50	3.39	0.1075	-0.0664	0.3670	-0.0465	0.2529	-0.0732	0.1566	-0.0650
11.67	3.42	0.1071	-0.0668	0.3666	-0.0469	0.2526	-0.0735	0.1566	-0.0650
11.83	3.44	0.1067	-0.0672	0.3663	-0.0472	0.2523	-0.0738	0.1566	-0.0650
12.00	3.46	0.1062	-0.0677	0.3660	-0.0475	0.2521	-0.0740	0.1566	-0.0650
12.17	3.49	0.1060	-0.0679	0.3657	-0.0478	0.2519	-0.0742	0.1566	-0.0650
12.33	3.51	0.1055	-0.0684	0.3654	-0.0481	0.2515	-0.0746	0.1566	-0.0650
12.50	3.54	0.1052	-0.0687	0.3651	-0.0484	0.2514	-0.0747	0.1542	-0.0674
12.67	3.56	0.1048	-0.0691	0.3648	-0.0487	0.2511	-0.0750	0.1542	-0.0674
12.83	3.58	0.1045	-0.0694	0.3646	-0.0489	0.2507	-0.0754	0.1538	-0.0678
13.00	3.61	0.1041	-0.0698	0.3642	-0.0493	0.2506	-0.0755	0.1535	-0.0681
13.17	3.63	0.1039	-0.0700	0.3640	-0.0495	0.2503	-0.0758	0.1534	-0.0682
13.33	3.65	0.1036	-0.0703	0.3637	-0.0498	0.2501	-0.0760	0.1530	-0.0686
13.50	3.67	0.1033	-0.0706	0.3635	-0.0500	0.2499	-0.0762	0.1527	-0.0689
13.67	3.70	0.1029	-0.0710	0.3632	-0.0503	0.2497	-0.0764	0.1525	-0.0691
13.83	3.72	0.1027	-0.0712	0.3629	-0.0506	0.2494	-0.0767	0.1524	-0.0692
14.00	3.74	0.1023	-0.0716	0.3625	-0.0510	0.2492	-0.0769	0.1521	-0.0695
14.17	3.76	0.1020	-0.0719	0.3624	-0.0511	0.2490	-0.0771	0.1518	-0.0698
14.33	3.79	0.1017	-0.0722	0.3621	-0.0514	0.2488	-0.0773	0.1517	-0.0699
14.50	3.81	0.1015	-0.0724	0.3619	-0.0516	0.2486	-0.0775	0.1515	-0.0701
14.67	3.83	0.1012	-0.0727	0.3616	-0.0519	0.2484	-0.0777	0.1512	-0.0704
14.83	3.85	0.1010	-0.0729	0.3615	-0.0520	0.2482	-0.0779	0.1510	-0.0706
15.33	3.92	0.1001	-0.0738	0.3608	-0.0527	0.2475	-0.0786	0.1506	-0.0710
15.83	3.98	0.0994	-0.0745	0.3601	-0.0534	0.2474	-0.0787	0.1500	-0.0716
16.33	4.04	0.0985	-0.0754	0.3594	-0.0541	0.2465	-0.0796	0.1497	-0.0719
16.83	4.10	0.0979	-0.0760	0.3589	-0.0546	0.2460	-0.0801	0.1493	-0.0723
17.33	4.16	0.0972	-0.0767	0.3583	-0.0552	0.2455	-0.0806	0.1490	-0.0726
17.83	4.22	0.0965	-0.0774	0.3577	-0.0558	0.2451	-0.0810	0.1486	-0.0730
18.33	4.28	0.0958	-0.0781	0.3572	-0.0563	0.2447	-0.0814	0.1484	-0.0732
18.83	4.34	0.0953	-0.0786	0.3568	-0.0567	0.2443	-0.0818	0.1480	-0.0736
19.33	4.40	0.0948	-0.0791	0.3562	-0.0573	0.2439	-0.0822	0.1476	-0.0740
19.83	4.45	0.0943	-0.0796	0.3558	-0.0577	0.2436	-0.0825	0.1473	-0.0743
20.33	4.51	0.0938	-0.0801	0.3553	-0.0582	0.2432	-0.0829	0.1470	-0.0746
20.83	4.56	0.0934	-0.0805	0.3549	-0.0586	0.2428	-0.0833	0.1467	-0.0749
21.33	4.62	0.0928	-0.0811	0.3551	-0.0584	0.2426	-0.0835	0.1464	-0.0752
21.83	4.67	0.0925	-0.0814	0.3548	-0.0587	0.2422	-0.0839	0.1461	-0.0755
22.33	4.73	0.0919	-0.0820	0.3545	-0.0590	0.2420	-0.0841	0.1459	-0.0757
22.83	4.78	0.0915	-0.0824	0.3541	-0.0594	0.2417	-0.0844	0.1456	-0.0760
23.33	4.83	0.0911	-0.0828	0.3537	-0.0598	0.2414	-0.0847	0.1453	-0.0763
23.83	4.88	0.0907	-0.0832	0.3535	-0.0600	0.2412	-0.0849	0.1452	-0.0764
24.33	4.93	0.0903	-0.0836	0.3531	-0.0604	0.2409	-0.0852	0.1449	-0.0767
24.83	4.98	0.0899	-0.0840	0.3529	-0.0606	0.2406	-0.0855	0.1446	-0.0770
25.33	5.03	0.0895	-0.0844	0.3525	-0.0610	0.2405	-0.0856	0.1445	-0.0771
25.83	5.08	0.0892	-0.0847	0.3522	-0.0613	0.2403	-0.0858	0.1442	-0.0774
26.33	5.13	0.0889	-0.0850	0.3520	-0.0615	0.2400	-0.0861	0.1440	-0.0776
26.83	5.18	0.0886	-0.0853	0.3517	-0.0618	0.2398	-0.0863	0.1438	-0.0778
27.33	5.23	0.0883	-0.0856	0.3514	-0.0621	0.2396	-0.0865	0.1437	-0.0779
27.83	5.28	0.0880	-0.0859	0.3511	-0.0624	0.2394	-0.0867	0.1434	-0.0782
28.33	5.32	0.0877	-0.0862	0.3508	-0.0627	0.2392	-0.0869	0.1432	-0.0784
28.83	5.37	0.0875	-0.0864	0.3506	-0.0629	0.2390	-0.0871	0.1430	-0.0786
29.33	5.42	0.0871	-0.0868	0.3504	-0.0631	0.2388	-0.0873	0.1429	-0.0787
29.83	5.46	0.0870	-0.0869	0.3502	-0.0633	0.2386	-0.0875	0.1427	-0.0789
30.33	5.51	0.0867	-0.0872	0.3499	-0.0636	0.2384	-0.0877	0.1426	-0.0790
30.83	5.55	0.0864	-0.0875	0.3498	-0.0637	0.2382	-0.0879	0.1424	-0.0792
31.33	5.60	0.0862	-0.0877	0.3495	-0.0640	0.2381	-0.0880	0.1422	-0.0794
31.83	5.64	0.0860	-0.0879	0.3493	-0.0642	0.2379	-0.0882	0.1421	-0.0795
32.33	5.69	0.0857	-0.0882	0.3491	-0.0644	0.2378	-0.0883	0.1420	-0.0796
32.83	5.73	0.0855	-0.0884	0.3490	-0.0645	0.2376	-0.0885	0.1418	-0.0798
33.33	5.77	0.0853	-0.0886	0.3488	-0.0647	0.2374	-0.0887	0.1417	-0.0799
33.83	5.82	0.0851	-0.0888	0.3486	-0.0649	0.2373	-0.0888	0.1415	-0.0801
34.33	5.86	0.0849	-0.0890	0.3484	-0.0651	0.2372	-0.0889	0.1414	-0.0802
34.83	5.90	0.0847	-0.0892	0.3482	-0.0653	0.2370	-0.0891	0.1413	-0.0803

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.0845	-0.0894	0.3481	-0.0654	0.2369	-0.0892	0.1412	-0.0804
35.83	5.99	0.0843	-0.0896	0.3480	-0.0655	0.2367	-0.0894	0.1411	-0.0805
36.33	6.03	0.0841	-0.0898	0.3477	-0.0658	0.2366	-0.0895	0.1409	-0.0807
36.83	6.07	0.0839	-0.0900	0.3476	-0.0659	0.2365	-0.0896	0.1408	-0.0808
37.33	6.11	0.0838	-0.0901	0.3474	-0.0661	0.2364	-0.0897	0.1407	-0.0809
37.83	6.15	0.0837	-0.0902	0.3473	-0.0662	0.2363	-0.0898	0.1406	-0.0810
38.33	6.19	0.0834	-0.0905	0.3471	-0.0664	0.2361	-0.0900	0.1406	-0.0810
38.83	6.23	0.0832	-0.0907	0.3470	-0.0665	0.2360	-0.0901	0.1405	-0.0811
39.33	6.27	0.0831	-0.0908	0.3468	-0.0667	0.2359	-0.0902	0.1403	-0.0813
39.83	6.31	0.0829	-0.0910	0.3467	-0.0668	0.2358	-0.0903	0.1402	-0.0814
40.33	6.35	0.0827	-0.0912	0.3466	-0.0669	0.2357	-0.0904	0.1401	-0.0815
40.83	6.39	0.0826	-0.0913	0.3465	-0.0670	0.2356	-0.0905	0.1400	-0.0816
41.33	6.43	0.0824	-0.0915	0.3463	-0.0672	0.2355	-0.0906	0.1399	-0.0817
41.83	6.47	0.0823	-0.0916	0.3462	-0.0673	0.2354	-0.0907	0.1398	-0.0818
42.33	6.51	0.0821	-0.0918	0.3460	-0.0675	0.2353	-0.0908	0.1398	-0.0818
42.83	6.54	0.0819	-0.0920	0.3459	-0.0676	0.2352	-0.0909	0.1397	-0.0819
43.33	6.58	0.0818	-0.0921	0.3458	-0.0677	0.2351	-0.0910	0.1396	-0.0820
43.83	6.62	0.0816	-0.0923	0.3458	-0.0677	0.2349	-0.0912	0.1395	-0.0821
44.33	6.66	0.0816	-0.0923	0.3456	-0.0679	0.2349	-0.0912	0.1394	-0.0822
44.83	6.70	0.0814	-0.0925	0.3454	-0.0681	0.2348	-0.0913	0.1393	-0.0823
45.33	6.73	0.0812	-0.0927	0.3453	-0.0682	0.2347	-0.0914	0.1392	-0.0824
45.83	6.77	0.0811	-0.0928	0.3452	-0.0683	0.2346	-0.0915	0.1392	-0.0824
46.33	6.81	0.0809	-0.0930	0.3451	-0.0684	0.2345	-0.0916	0.1391	-0.0825
46.83	6.84	0.0808	-0.0931	0.3451	-0.0684	0.2344	-0.0917	0.1390	-0.0826
47.33	6.88	0.0807	-0.0932	0.3450	-0.0685	0.2344	-0.0917	0.1390	-0.0826
47.83	6.92	0.0806	-0.0933	0.3448	-0.0687	0.2343	-0.0918	0.1389	-0.0827
48.33	6.95	0.0805	-0.0934	0.3446	-0.0689	0.2342	-0.0919	0.1388	-0.0828
48.83	6.99	0.0804	-0.0935	0.3445	-0.0690	0.2342	-0.0919	0.1387	-0.0829
49.33	7.02	0.0802	-0.0937	0.3444	-0.0691	0.2341	-0.0920	0.1386	-0.0830
49.83	7.06	0.0801	-0.0938	0.3443	-0.0692	0.2341	-0.0920	0.1386	-0.0830
50.33	7.09	0.0800	-0.0939	0.3443	-0.0692	0.2340	-0.0921	0.1384	-0.0832
50.83	7.13	0.0799	-0.0940	0.3442	-0.0693	0.2339	-0.0922	0.1384	-0.0832
51.33	7.16	0.0798	-0.0941	0.3441	-0.0694	0.2338	-0.0923	0.1383	-0.0833
51.83	7.20	0.0797	-0.0942	0.3440	-0.0695	0.2337	-0.0924	0.1382	-0.0834
52.33	7.23	0.0796	-0.0943	0.3439	-0.0696	0.2337	-0.0924	0.1382	-0.0834
52.83	7.27	0.0795	-0.0944	0.3438	-0.0697	0.2336	-0.0925	0.1382	-0.0834
53.33	7.30	0.0794	-0.0945	0.3437	-0.0698	0.2335	-0.0926	0.1381	-0.0835
53.83	7.34	0.0792	-0.0947	0.3436	-0.0699	0.2334	-0.0927	0.1380	-0.0836
54.33	7.37	0.0791	-0.0948	0.3435	-0.0700	0.2334	-0.0927	0.1379	-0.0837
54.83	7.40	0.0789	-0.0950	0.3435	-0.0700	0.2334	-0.0927	0.1379	-0.0837
55.33	7.44	0.0788	-0.0951	0.3434	-0.0701	0.2333	-0.0928	0.1378	-0.0838
55.83	7.47	0.0788	-0.0951	0.3433	-0.0702	0.2333	-0.0928	0.1377	-0.0839
56.33	7.51	0.0787	-0.0952	0.3433	-0.0702	0.2332	-0.0929	0.1376	-0.0840
56.83	7.54	0.0786	-0.0953	0.3432	-0.0703	0.2331	-0.0930	0.1376	-0.0840
57.33	7.57	0.0785	-0.0954	0.3431	-0.0704	0.2331	-0.0930	0.1375	-0.0841
57.83	7.60	0.0784	-0.0955	0.3430	-0.0705	0.2330	-0.0931	0.1374	-0.0842
58.33	7.64	0.0784	-0.0955	0.3429	-0.0706	0.2329	-0.0932	0.1374	-0.0842
58.83	7.67	0.0783	-0.0956	0.3428	-0.0707	0.2329	-0.0932	0.1374	-0.0842
59.33	7.70	0.0782	-0.0957	0.3427	-0.0708	0.2328	-0.0933	0.1373	-0.0843
59.83	7.74	0.0781	-0.0958	0.3427	-0.0708	0.2327	-0.0934	0.1373	-0.0843
60.83	7.80	0.0779	-0.0960	0.3426	-0.0709	0.2326	-0.0935	0.1371	-0.0845
61.83	7.86	0.0779	-0.0960	0.3424	-0.0711	0.2326	-0.0935	0.1370	-0.0846
62.83	7.93	0.0777	-0.0962	0.3422	-0.0713	0.2325	-0.0936	0.1369	-0.0847
63.83	7.99	0.0776	-0.0963	0.3421	-0.0714	0.2323	-0.0938	0.1368	-0.0848
64.83	8.05	0.0775	-0.0964	0.3419	-0.0716	0.2322	-0.0939	0.1367	-0.0849
65.83	8.11	0.0773	-0.0966	0.3419	-0.0716	0.2321	-0.0940	0.1366	-0.0850
66.83	8.18	0.0772	-0.0967	0.3417	-0.0718	0.2320	-0.0941	0.1365	-0.0851
67.83	8.24	0.0770	-0.0969	0.3416	-0.0719	0.2319	-0.0942	0.1364	-0.0852
68.83	8.30	0.0769	-0.0970	0.3415	-0.0720	0.2318	-0.0943	0.1363	-0.0853
69.83	8.36	0.0768	-0.0971	0.3414	-0.0721	0.2318	-0.0943	0.1362	-0.0854
70.83	8.42	0.0767	-0.0972	0.3412	-0.0723	0.2317	-0.0944	0.1361	-0.0855
71.83	8.48	0.0766	-0.0973	0.3411	-0.0724	0.2316	-0.0945	0.1360	-0.0856
72.83	8.53	0.0764	-0.0975	0.3411	-0.0724	0.2316	-0.0945	0.1359	-0.0857
73.83	8.59	0.0762	-0.0977	0.3409	-0.0726	0.2315	-0.0946	0.1358	-0.0858
74.83	8.65	0.0761	-0.0978	0.3408	-0.0727	0.2314	-0.0947	0.1358	-0.0858

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.0761	-0.0978	0.3408	-0.0727	0.2313	-0.0948	0.1357	-0.0859
76.83	8.77	0.0760	-0.0979	0.3406	-0.0729	0.2312	-0.0949	0.1356	-0.0860
77.83	8.82	0.0759	-0.0980	0.3405	-0.0730	0.2311	-0.0950	0.1355	-0.0861
78.83	8.88	0.0758	-0.0981	0.3404	-0.0731	0.2310	-0.0951	0.1354	-0.0862
79.83	8.93	0.0756	-0.0983	0.3403	-0.0732	0.2310	-0.0951	0.1353	-0.0863
80.83	8.99	0.0755	-0.0984	0.3403	-0.0732	0.2309	-0.0952	0.1352	-0.0864
81.83	9.05	0.0754	-0.0985	0.3402	-0.0733	0.2309	-0.0952	0.1352	-0.0864
82.83	9.10	0.0753	-0.0986	0.3401	-0.0734	0.2308	-0.0953	0.1351	-0.0865
83.83	9.16	0.0753	-0.0986	0.3400	-0.0735	0.2307	-0.0954	0.1351	-0.0865
84.83	9.21	0.0752	-0.0987	0.3399	-0.0736	0.2306	-0.0955	0.1350	-0.0866
85.83	9.26	0.0750	-0.0989	0.3398	-0.0737	0.2305	-0.0956	0.1349	-0.0867
86.83	9.32	0.0749	-0.0990	0.3397	-0.0738	0.2304	-0.0957	0.1349	-0.0867
87.83	9.37	0.0749	-0.0990	0.3396	-0.0739	0.2303	-0.0958	0.1348	-0.0868
88.83	9.43	0.0748	-0.0991	0.3395	-0.0740	0.2303	-0.0958	0.1347	-0.0869
89.83	9.48	0.0747	-0.0992	0.3395	-0.0740	0.2302	-0.0959	0.1346	-0.0870
90.83	9.53	0.0746	-0.0993	0.3394	-0.0741	0.2302	-0.0959	0.1345	-0.0871
91.83	9.58	0.0745	-0.0994	0.3393	-0.0742	0.2301	-0.0960	0.1345	-0.0871
92.83	9.64	0.0745	-0.0994	0.3392	-0.0743	0.2301	-0.0960	0.1344	-0.0872
93.83	9.69	0.0744	-0.0995	0.3391	-0.0744	0.2300	-0.0961	0.1343	-0.0873
94.83	9.74	0.0743	-0.0996	0.3391	-0.0744	0.2299	-0.0962	0.1343	-0.0873
95.83	9.79	0.0742	-0.0997	0.3390	-0.0745	0.2298	-0.0963	0.1343	-0.0873
96.83	9.84	0.0741	-0.0998	0.3389	-0.0746	0.2298	-0.0963	0.1342	-0.0874
97.83	9.89	0.0740	-0.0999	0.3388	-0.0747	0.2297	-0.0964	0.1342	-0.0874
98.83	9.94	0.0739	-0.1000	0.3388	-0.0747	0.2296	-0.0965	0.1341	-0.0875
99.83	9.99	0.0738	-0.1001	0.3388	-0.0747	0.2296	-0.0965	0.1340	-0.0876
100.83	10.04	0.0737	-0.1002	0.3387	-0.0748	0.2295	-0.0966	0.1340	-0.0876
101.83	10.09	0.0737	-0.1002	0.3386	-0.0749	0.2294	-0.0967	0.1339	-0.0877
102.83	10.14	0.0737	-0.1002	0.3386	-0.0749	0.2294	-0.0967	0.1339	-0.0877
103.83	10.19	0.0735	-0.1004	0.3385	-0.0750	0.2294	-0.0967	0.1338	-0.0878
104.83	10.24	0.0734	-0.1005	0.3384	-0.0751	0.2293	-0.0968	0.1337	-0.0879
105.83	10.29	0.0733	-0.1006	0.3383	-0.0752	0.2292	-0.0969	0.1337	-0.0879
106.83	10.34	0.0733	-0.1006	0.3383	-0.0752	0.2292	-0.0969	0.1336	-0.0880
107.83	10.38	0.0732	-0.1007	0.3382	-0.0753	0.2291	-0.0970	0.1336	-0.0880
108.83	10.43	0.0731	-0.1008	0.3381	-0.0754	0.2291	-0.0970	0.1335	-0.0881
109.83	10.48	0.0730	-0.1009	0.3381	-0.0754	0.2290	-0.0971	0.1335	-0.0881
110.83	10.53	0.0730	-0.1009	0.3380	-0.0755	0.2290	-0.0971	0.1335	-0.0881
111.83	10.58	0.0729	-0.1010	0.3380	-0.0755	0.2289	-0.0972	0.1334	-0.0882
112.83	10.62	0.0729	-0.1010	0.3380	-0.0755	0.2288	-0.0973	0.1334	-0.0882
113.83	10.67	0.0728	-0.1011	0.3379	-0.0756	0.2288	-0.0973	0.1333	-0.0883
114.83	10.72	0.0727	-0.1012	0.3378	-0.0757	0.2287	-0.0974	0.1333	-0.0883
115.83	10.76	0.0727	-0.1012	0.3376	-0.0759	0.2287	-0.0974	0.1332	-0.0884
116.83	10.81	0.0726	-0.1013	0.3376	-0.0759	0.2287	-0.0974	0.1332	-0.0884
117.83	10.86	0.0725	-0.1014	0.3376	-0.0759	0.2287	-0.0974	0.1331	-0.0885
118.83	10.90	0.0724	-0.1015	0.3375	-0.0760	0.2286	-0.0975	0.1331	-0.0885
119.83	10.95	0.0723	-0.1016	0.3374	-0.0761	0.2286	-0.0975	0.1330	-0.0886
129.83	11.39	0.0717	-0.1022	0.3357	-0.0778	0.2282	-0.0979	0.1327	-0.0889
139.83	11.83	0.0712	-0.1027	0.3352	-0.0783	0.2279	-0.0982	0.1322	-0.0894
149.83	12.24	0.0706	-0.1033	0.3346	-0.0789	0.2275	-0.0986	0.1319	-0.0897
159.83	12.64	0.0702	-0.1037	0.3338	-0.0797	0.2272	-0.0989	0.1316	-0.0900
169.83	13.03	0.0698	-0.1041	0.3334	-0.0801	0.2269	-0.0992	0.1313	-0.0903
179.83	13.41	0.0693	-0.1046	0.3331	-0.0804	0.2266	-0.0995	0.1311	-0.0905
189.83	13.78	0.0689	-0.1050	0.3325	-0.0810	0.2263	-0.0998	0.1308	-0.0908
199.83	14.14	0.0685	-0.1054	0.3322	-0.0813	0.2262	-0.0999	0.1306	-0.0910
209.83	14.49	0.0683	-0.1056	0.3319	-0.0816	0.2259	-0.1002	0.1303	-0.0913
219.83	14.83	0.0681	-0.1058	0.3316	-0.0819	0.2257	-0.1004	0.1302	-0.0914
229.83	15.16	0.0678	-0.1061	0.3313	-0.0822	0.2255	-0.1006	0.1300	-0.0916
239.83	15.49	0.0676	-0.1063	0.3309	-0.0826	0.2254	-0.1007	0.1297	-0.0919
249.83	15.81	0.0674	-0.1065	0.3307	-0.0828	0.2252	-0.1009	0.1296	-0.0920
259.83	16.12	0.0673	-0.1066	0.3306	-0.0829	0.2251	-0.1010	0.1294	-0.0922
269.83	16.43	0.0670	-0.1069	0.3303	-0.0832	0.2249	-0.1012	0.1292	-0.0924
279.83	16.73	0.0668	-0.1071	0.3301	-0.0834	0.2248	-0.1013	0.1290	-0.0926
289.83	17.02	0.0666	-0.1073	0.3298	-0.0837	0.2247	-0.1014	0.1288	-0.0928
299.83	17.32	0.0664	-0.1075	0.3295	-0.0840	0.2247	-0.1014	0.1287	-0.0929
309.83	17.60	0.0662	-0.1077	0.3293	-0.0842	0.2246	-0.1015	0.1286	-0.0930
319.83	17.88	0.0661	-0.1078	0.3291	-0.0844	0.2245	-0.1016	0.1284	-0.0932

Sample: Pond 8E, BH-5 @ 4.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.0659	-0.1080	0.3288	-0.0847	0.2244	-0.1017	0.1282	-0.0934
339.83	18.43	0.0658	-0.1081	0.3286	-0.0849	0.2243	-0.1018	0.1281	-0.0935
349.83	18.70	0.0655	-0.1084	0.3285	-0.0850	0.2241	-0.1020	0.1280	-0.0936
359.83	18.97	0.0654	-0.1085	0.3282	-0.0853	0.2240	-0.1021	0.1279	-0.0937
369.83	19.23	0.0652	-0.1087	0.3280	-0.0855	0.2240	-0.1021	0.1277	-0.0939
379.83	19.49	0.0651	-0.1088	0.3279	-0.0856	0.2239	-0.1022	0.1275	-0.0941
389.83	19.74	0.0650	-0.1089	0.3278	-0.0857	0.2239	-0.1022	0.1274	-0.0942
399.83	20.00	0.0648	-0.1091	0.3275	-0.0860	0.2238	-0.1023	0.1272	-0.0944
409.83	20.24	0.0647	-0.1092	0.3273	-0.0862	0.2238	-0.1023	0.1272	-0.0944
419.83	20.49	0.0645	-0.1094	0.3272	-0.0863	0.2237	-0.1024	0.1271	-0.0945
429.83	20.73	0.0644	-0.1095	0.3270	-0.0865	0.2236	-0.1025	0.1269	-0.0947
439.83	20.97	0.0643	-0.1096	0.3270	-0.0865	0.2236	-0.1025	0.1268	-0.0948
449.83	21.21	0.0642	-0.1097	0.3269	-0.0866	0.2235	-0.1026	0.1267	-0.0949
459.83	21.44	0.0641	-0.1098	0.3268	-0.0867	0.2235	-0.1026	0.1266	-0.0950
469.83	21.68	0.0639	-0.1100	0.3266	-0.0869	0.2234	-0.1027	0.1265	-0.0951
479.83	21.91	0.0638	-0.1101	0.3265	-0.0870	0.2234	-0.1027	0.1264	-0.0952
489.83	22.13	0.0637	-0.1102	0.3263	-0.0872	0.2234	-0.1027	0.1263	-0.0953
499.83	22.36	0.0635	-0.1104	0.3262	-0.0873	0.2233	-0.1028	0.1262	-0.0954
509.83	22.58	0.0635	-0.1104	0.3261	-0.0874	0.2232	-0.1029	0.1261	-0.0955
519.83	22.80	0.0635	-0.1104			0.2232	-0.1029	0.1260	-0.0956
529.83	23.02	0.0633	-0.1106			0.2232	-0.1029	0.1259	-0.0957
539.83	23.23	0.0633	-0.1106			0.2231	-0.1030	0.1258	-0.0958
549.83	23.45	0.0631	-0.1108			0.2231	-0.1030	0.1258	-0.0958
559.83	23.66	0.0631	-0.1108			0.2230	-0.1031	0.1257	-0.0959
569.83	23.87	0.0631	-0.1108			0.2230	-0.1031	0.1256	-0.0960
579.83	24.08	0.0630	-0.1109			0.2229	-0.1032	0.1256	-0.0960
589.83	24.29	0.0629	-0.1110			0.2229	-0.1032	0.1255	-0.0961
599.83	24.49	0.0629	-0.1110			0.2228	-0.1033	0.1255	-0.0961
609.83	24.69	0.0628	-0.1111			0.2228	-0.1033	0.1254	-0.0962
619.83	24.90	0.0627	-0.1112			0.2227	-0.1034	0.1253	-0.0963
629.83	25.10	0.0626	-0.1113			0.2226	-0.1035	0.1252	-0.0964
639.83	25.29	0.0626	-0.1113			0.2226	-0.1035	0.1251	-0.0965
649.83	25.49	0.0626	-0.1113			0.2226	-0.1035	0.1251	-0.0965
659.83	25.69	0.0625	-0.1114			0.2226	-0.1035	0.1250	-0.0966
669.83	25.88	0.0625	-0.1114			0.2226	-0.1035	0.1249	-0.0967
679.83	26.07	0.0624	-0.1115			0.2225	-0.1036	0.1249	-0.0967
689.83	26.26	0.0624	-0.1115			0.2225	-0.1036	0.1248	-0.0968
699.83	26.45	0.0623	-0.1116			0.2225	-0.1036	0.1248	-0.0968
709.83	26.64	0.0622	-0.1117			0.2224	-0.1037	0.1248	-0.0968
719.83	26.83	0.0622	-0.1117			0.2224	-0.1037	0.1248	-0.0968
749.83	27.38	0.0620	-0.1119			0.2224	-0.1037	0.1246	-0.0970
779.83	27.93	0.0619	-0.1120			0.2224	-0.1037	0.1245	-0.0971
809.83	28.46	0.0618	-0.1121			0.2222	-0.1039	0.1244	-0.0972
839.83	28.98	0.0617	-0.1122			0.2222	-0.1039	0.1243	-0.0973
869.83	29.49	0.0616	-0.1123			0.2220	-0.1041	0.1243	-0.0973
899.83	30.00	0.0615	-0.1124			0.2219	-0.1042	0.1242	-0.0974
929.83	30.49					0.2219	-0.1042	0.1241	-0.0975
959.83	30.98					0.2218	-0.1043	0.1240	-0.0976
989.83	31.46					0.2217	-0.1044	0.1240	-0.0976
1019.83	31.93					0.2216	-0.1045	0.1240	-0.0976
1049.83	32.40							0.1239	-0.0977
1079.83	32.86							0.1239	-0.0977
1109.83	33.31							0.1238	-0.0978
1139.83	33.76							0.1238	-0.0978
1169.83	34.20							0.1237	-0.0979
1199.83	34.64							0.1237	-0.0979
1229.83	35.07							0.1236	-0.0980
1259.83	35.49							0.1236	-0.0980
1289.83	35.91							0.1235	-0.0981

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 11S, BH-1 @ 7.5 feet
Sample Ht.	1.750 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.013 (cu-ft)
Phos Cont.	8.41 (%)
Init. M.C.	278.84 (%)
Init. M.C. (corr)	187.31 (%)
Final M.C.	150.81 (%)
Final M.C. (corr)	107.12 (%)
Dry Wt. of Soil/f	154.57 (g)
Dry Wt. of Soil/i	161.57 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	18.98
Phos. Wt. (g)	1.60
Dry Wt. (g)	5.01
Dry Wt. + Phos Wt. (g)	6.61
Water Wt. + Phos (g)	13.97
Water Wt. (g)	12.37
(final)	
Total Wet Wt. (g)	27.84
Phos. Wt. (g)	2.34
Dry Wt. (g)	11.1
Dry Wt. + Phos Wt. (g)	13.44
Water Wt. + Phos (g)	16.74
Water Wt. (g)	14.40

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density (pcf)	Void Ratio (e)	Dry Density (pcf)
0.0010	0.4267	0.0000	1.7500	0	5.508	26.75	5.226	27.96
0.0250	0.3887	0.0380	1.7120	2.17	5.366	27.35	5.091	28.58
0.0500	0.3330	0.0937	1.6563	5.35	5.159	28.27	4.892	29.55
0.1000	0.1953	0.2313	1.5187	13.22	4.648	30.83	4.403	32.22
0.2500	0.0510	0.3754	1.3746	21.45	4.112	34.06	3.890	35.60
0.5000	0.3581	0.4580	1.2920	26.17	3.805	36.24	3.596	37.88
1.0000	0.2926	0.5235	1.2265	29.91	3.561	38.17	3.363	39.90
2.0000	0.2169	0.5991	1.1509	34.23	3.280	40.68	3.094	42.52
4.0000	0.1386	0.6774	1.0726	38.71	2.989	43.65	2.816	45.62

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 11S, BH-1 @ 7.5 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4267	0.0000	0.3887	0.0000	0.3329	0.0000	0.1951	0.0000
0.17	0.41	0.4267	0.0000	0.3887	-0.0038	0.3329	0.0000	0.1951	0.0000
0.33	0.58	0.4219	-0.0048	0.3849	-0.0048	0.3299	-0.0030	0.1869	-0.0082
0.50	0.71	0.4212	-0.0055	0.3839	-0.0054	0.3289	-0.0040	0.1814	-0.0137
0.67	0.82	0.4207	-0.0060	0.3833	-0.0067	0.3276	-0.0053	0.1778	-0.0173
0.83	0.91	0.4204	-0.0063	0.3820	-0.0073	0.3271	-0.0058	0.1743	-0.0208
1.00	1.00	0.4204	-0.0063	0.3814	-0.0073	0.3271	-0.0058	0.1743	-0.0208
1.17	1.08	0.4204	-0.0063	0.3809	-0.0078	0.3271	-0.0058	0.1687	-0.0264
1.33	1.15	0.4188	-0.0079	0.3802	-0.0085	0.3205	-0.0124	0.1650	-0.0301
1.50	1.22	0.4184	-0.0083	0.3796	-0.0091	0.3182	-0.0147	0.1640	-0.0311
1.67	1.29	0.4179	-0.0088	0.3791	-0.0096	0.3169	-0.0160	0.1611	-0.0340
1.83	1.35	0.4175	-0.0092	0.3782	-0.0105	0.3153	-0.0176	0.1601	-0.0350
2.00	1.41	0.4175	-0.0092	0.3776	-0.0111	0.3138	-0.0191	0.1576	-0.0375
2.17	1.47	0.4175	-0.0092	0.3770	-0.0117	0.3133	-0.0196	0.1566	-0.0385
2.33	1.53	0.4175	-0.0092	0.3762	-0.0125	0.3114	-0.0215	0.1541	-0.0410
2.50	1.58	0.4175	-0.0092	0.3756	-0.0131	0.3104	-0.0225	0.1525	-0.0426
2.67	1.63	0.4148	-0.0119	0.3756	-0.0131	0.3090	-0.0239	0.1525	-0.0426
2.83	1.68	0.4145	-0.0122	0.3744	-0.0143	0.3078	-0.0251	0.1495	-0.0456
3.00	1.73	0.4142	-0.0125	0.3741	-0.0146	0.3064	-0.0265	0.1490	-0.0461
3.17	1.78	0.4137	-0.0130	0.3734	-0.0153	0.3054	-0.0275	0.1490	-0.0461
3.33	1.83	0.4135	-0.0132	0.3729	-0.0158	0.3049	-0.0280	0.1490	-0.0461
3.50	1.87	0.4132	-0.0135	0.3725	-0.0162	0.3049	-0.0280	0.1490	-0.0461
3.67	1.91	0.4129	-0.0138	0.3719	-0.0168	0.3049	-0.0280	0.1490	-0.0461
3.83	1.96	0.4127	-0.0140	0.3714	-0.0173	0.3049	-0.0280	0.1398	-0.0553
4.00	2.00	0.4123	-0.0144	0.3708	-0.0179	0.3049	-0.0280	0.1394	-0.0557
4.17	2.04	0.4121	-0.0146	0.3705	-0.0182	0.3049	-0.0280	0.1394	-0.0557
4.33	2.08	0.4119	-0.0148	0.3705	-0.0182	0.3049	-0.0280	0.1394	-0.0557
4.50	2.12	0.4119	-0.0148	0.3705	-0.0182	0.3049	-0.0280	0.1344	-0.0607
4.67	2.16	0.4114	-0.0153	0.3705	-0.0182	0.3049	-0.0280	0.1333	-0.0618
4.83	2.20	0.4112	-0.0155	0.3705	-0.0182	0.3049	-0.0280	0.1318	-0.0633
5.00	2.24	0.4110	-0.0157	0.3678	-0.0209	0.2937	-0.0392	0.1308	-0.0643
5.17	2.27	0.4108	-0.0159	0.3678	-0.0209	0.2937	-0.0392	0.1303	-0.0648
5.33	2.31	0.4107	-0.0160	0.3678	-0.0209	0.2937	-0.0392	0.1303	-0.0648
5.50	2.35	0.4105	-0.0162	0.3678	-0.0209	0.2937	-0.0392	0.1303	-0.0648
5.67	2.38	0.4105	-0.0162	0.3661	-0.0226	0.2937	-0.0392	0.1303	-0.0648
5.83	2.42	0.4101	-0.0166	0.3657	-0.0230	0.2894	-0.0435	0.1303	-0.0648
6.00	2.45	0.4099	-0.0168	0.3653	-0.0234	0.2883	-0.0446	0.1303	-0.0648
6.17	2.48	0.4095	-0.0172	0.3653	-0.0234	0.2876	-0.0453	0.1228	-0.0723
6.33	2.52	0.4090	-0.0177	0.3653	-0.0234	0.2866	-0.0463	0.1228	-0.0723
6.50	2.55	0.4092	-0.0175	0.3653	-0.0234	0.2859	-0.0470	0.1228	-0.0723
6.67	2.58	0.4092	-0.0175	0.3653	-0.0234	0.2859	-0.0470	0.1228	-0.0723
6.83	2.61	0.4092	-0.0175	0.3630	-0.0257	0.2859	-0.0470	0.1228	-0.0723
7.00	2.65	0.4092	-0.0175	0.3630	-0.0257	0.2859	-0.0470	0.1228	-0.0723
7.17	2.68	0.4092	-0.0175	0.3630	-0.0257	0.2829	-0.0500	0.1176	-0.0775
7.33	2.71	0.4092	-0.0175	0.3630	-0.0257	0.2825	-0.0504	0.1169	-0.0782
7.50	2.74	0.4092	-0.0175	0.3630	-0.0257	0.2825	-0.0504	0.1167	-0.0784
7.67	2.77	0.4092	-0.0175	0.3630	-0.0257	0.2825	-0.0504	0.1167	-0.0784
7.83	2.80	0.4092	-0.0175	0.3630	-0.0257	0.2825	-0.0504	0.1167	-0.0784
8.00	2.83	0.4060	-0.0207	0.3630	-0.0257	0.2825	-0.0504	0.1167	-0.0784
8.17	2.86	0.4066	-0.0201	0.3630	-0.0257	0.2825	-0.0504	0.1133	-0.0818
8.33	2.89	0.4066	-0.0201	0.3592	-0.0295	0.2772	-0.0557	0.1126	-0.0825
8.50	2.92	0.4066	-0.0201	0.3588	-0.0299	0.2769	-0.0560	0.1122	-0.0829
8.67	2.94	0.4057	-0.0210	0.3583	-0.0304	0.2769	-0.0560	0.1122	-0.0829
8.83	2.97	0.4055	-0.0212	0.3583	-0.0304	0.2769	-0.0560	0.1122	-0.0829
9.00	3.00	0.4053	-0.0214	0.3583	-0.0304	0.2769	-0.0560	0.1098	-0.0853
9.17	3.03	0.4053	-0.0214	0.3583	-0.0304	0.2769	-0.0560	0.1090	-0.0861
9.33	3.06	0.4050	-0.0217	0.3583	-0.0304	0.2769	-0.0560	0.1085	-0.0866
9.50	3.08	0.4050	-0.0217	0.3583	-0.0304	0.2769	-0.0560	0.1085	-0.0866
9.67	3.11	0.4050	-0.0217	0.3583	-0.0304	0.2769	-0.0560	0.1074	-0.0877
9.83	3.14	0.4050	-0.0217	0.3583	-0.0304	0.2712	-0.0617	0.1074	-0.0877
10.00	3.16.	0.4050	-0.0217	0.3583	-0.0304	0.2705	-0.0624	0.1074	-0.0877
10.17	3.19	0.4050	-0.0217	0.3583	-0.0304	0.2702	-0.0627	0.1050	-0.0901
10.33	3.21	0.4050	-0.0217	0.3583	-0.0304	0.2702	-0.0627	0.1046	-0.0905
10.50	3.24	0.4033	-0.0234	0.3583	-0.0304	0.2702	-0.0627	0.1039	-0.0912
10.67	3.27	0.4033	-0.0234	0.3583	-0.0304	0.2702	-0.0627	0.1039	-0.0912

Sample: Pond 11S, BH-1 @ 7.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3914	-0.0353	0.3354	-0.0533	0.2148	-0.1181	0.0619	-0.1332
35.83	5.99	0.3912	-0.0355	0.3351	-0.0536	0.2143	-0.1186	0.0619	-0.1332
36.33	6.03	0.3911	-0.0356	0.3351	-0.0536	0.2138	-0.1191	0.0616	-0.1335
36.83	6.07	0.3911	-0.0356	0.3351	-0.0536	0.2134	-0.1195	0.0613	-0.1338
37.33	6.11	0.3911	-0.0356	0.3350	-0.0537	0.2134	-0.1195	0.0610	-0.1341
37.83	6.15	0.3910	-0.0357	0.3350	-0.0537	0.2134	-0.1195	0.0610	-0.1341
38.33	6.19	0.3910	-0.0357	0.3350	-0.0537	0.2122	-0.1207	0.0608	-0.1343
38.83	6.23	0.3909	-0.0358	0.3348	-0.0539	0.2122	-0.1207	0.0608	-0.1343
39.33	6.27	0.3909	-0.0358	0.3348	-0.0539	0.2122	-0.1207	0.0608	-0.1343
39.83	6.31	0.3909	-0.0358	0.3348	-0.0539	0.2122	-0.1207	0.0608	-0.1343
40.33	6.35	0.3908	-0.0359	0.3348	-0.0539	0.2122	-0.1207	0.0603	-0.1348
40.83	6.39	0.3908	-0.0359	0.3348	-0.0539	0.2122	-0.1207	0.0602	-0.1349
41.33	6.43	0.3906	-0.0361	0.3348	-0.0539	0.2101	-0.1228	0.0601	-0.1350
41.83	6.47	0.3901	-0.0366	0.3347	-0.0540	0.2095	-0.1234	0.0601	-0.1350
42.33	6.51	0.3899	-0.0368	0.3347	-0.0540	0.2095	-0.1234	0.0601	-0.1350
42.83	6.54	0.3899	-0.0368	0.3347	-0.0540	0.2090	-0.1239	0.0598	-0.1353
43.33	6.58	0.3899	-0.0368	0.3345	-0.0542	0.2090	-0.1239	0.0598	-0.1353
43.83	6.62	0.3899	-0.0368	0.3345	-0.0542	0.2090	-0.1239	0.0598	-0.1353
44.33	6.66	0.3899	-0.0368	0.3345	-0.0542	0.2077	-0.1252	0.0598	-0.1353
44.83	6.70	0.3893	-0.0374	0.3345	-0.0542	0.2077	-0.1252	0.0598	-0.1353
45.33	6.73	0.3893	-0.0374	0.3345	-0.0542	0.2077	-0.1252	0.0598	-0.1353
45.83	6.77	0.3893	-0.0374	0.3344	-0.0543	0.2077	-0.1252	0.0593	-0.1358
46.33	6.81	0.3893	-0.0374	0.3344	-0.0543	0.2070	-0.1259	0.0593	-0.1358
46.83	6.84	0.3893	-0.0374	0.3344	-0.0543	0.2069	-0.1260	0.0593	-0.1358
47.33	6.88	0.3892	-0.0375	0.3344	-0.0543	0.2069	-0.1260	0.0592	-0.1359
47.83	6.92	0.3892	-0.0375	0.3344	-0.0543	0.2069	-0.1260	0.0592	-0.1359
48.33	6.95	0.3892	-0.0375	0.3344	-0.0543	0.2069	-0.1260	0.0592	-0.1359
48.83	6.99	0.3892	-0.0375	0.3344	-0.0543	0.2064	-0.1265	0.0589	-0.1362
49.33	7.02	0.3892	-0.0375	0.3344	-0.0543	0.2064	-0.1265	0.0589	-0.1362
49.83	7.06	0.3892	-0.0375	0.3341	-0.0546	0.2064	-0.1265	0.0588	-0.1363
50.33	7.09	0.3892	-0.0375	0.3341	-0.0546	0.2064	-0.1265	0.0588	-0.1363
50.83	7.13	0.3892	-0.0375	0.3341	-0.0546	0.2064	-0.1265	0.0588	-0.1363
51.33	7.16	0.3892	-0.0375	0.3340	-0.0547	0.2058	-0.1271	0.0587	-0.1364
51.83	7.20	0.3892	-0.0375	0.3340	-0.0547	0.2058	-0.1271	0.0586	-0.1365
52.33	7.23	0.3892	-0.0375	0.3340	-0.0547	0.2058	-0.1271	0.0586	-0.1365
52.83	7.27	0.3892	-0.0375	0.3340	-0.0547	0.2054	-0.1275	0.0585	-0.1366
53.33	7.30	0.3892	-0.0375	0.3340	-0.0547	0.2054	-0.1275	0.0585	-0.1366
53.83	7.34	0.3892	-0.0375	0.3339	-0.0548	0.2052	-0.1277	0.0584	-0.1367
54.33	7.37	0.3892	-0.0375	0.3339	-0.0548	0.2052	-0.1277	0.0584	-0.1367
54.83	7.40	0.3892	-0.0375	0.3338	-0.0549	0.2050	-0.1279	0.0584	-0.1367
55.33	7.44	0.3892	-0.0375	0.3338	-0.0549	0.2049	-0.1280	0.0583	-0.1368
55.83	7.47	0.3889	-0.0378	0.3338	-0.0549	0.2047	-0.1282	0.0583	-0.1368
56.33	7.51	0.3889	-0.0378	0.3338	-0.0549	0.2047	-0.1282	0.0582	-0.1369
56.83	7.54	0.3889	-0.0378	0.3337	-0.0550	0.2047	-0.1282	0.0582	-0.1369
57.33	7.57	0.3889	-0.0378	0.3338	-0.0549	0.2045	-0.1284	0.0582	-0.1369
57.83	7.60	0.3880	-0.0387	0.3337	-0.0550	0.2043	-0.1286	0.0581	-0.1370
58.33	7.64	0.3880	-0.0387	0.3337	-0.0550	0.2043	-0.1286	0.0581	-0.1370
58.83	7.67	0.3880	-0.0387	0.3337	-0.0550	0.2041	-0.1288	0.0581	-0.1370
59.33	7.70	0.3889	-0.0378	0.3337	-0.0550	0.2040	-0.1289	0.0581	-0.1370
59.83	7.74	0.3889	-0.0378	0.3337	-0.0550	0.2039	-0.1290	0.0581	-0.1370
60.83	7.80	0.3889	-0.0378	0.3336	-0.0551	0.2039	-0.1290	0.0578	-0.1373
61.83	7.86	0.3889	-0.0378	0.3336	-0.0551	0.2039	-0.1290	0.0578	-0.1373
62.83	7.93	0.3889	-0.0378	0.3336	-0.0551	0.2038	-0.1291	0.0577	-0.1374
63.83	7.99	0.3889	-0.0378	0.3336	-0.0551	0.2037	-0.1292	0.0576	-0.1375
64.83	8.05	0.3889	-0.0378	0.3336	-0.0551	0.2037	-0.1292	0.0576	-0.1375
65.83	8.11	0.3889	-0.0378	0.3336	-0.0551	0.2035	-0.1294	0.0575	-0.1376
66.83	8.18	0.3889	-0.0378	0.3335	-0.0552	0.2034	-0.1295	0.0575	-0.1376
67.83	8.24	0.3889	-0.0378	0.3335	-0.0552	0.2034	-0.1295	0.0574	-0.1377
68.83	8.30	0.3889	-0.0378	0.3335	-0.0552	0.2033	-0.1296	0.0574	-0.1377
69.83	8.36	0.3889	-0.0378	0.3335	-0.0552	0.2033	-0.1296	0.0572	-0.1379
70.83	8.42	0.3888	-0.0379	0.3335	-0.0552	0.2032	-0.1297	0.0572	-0.1379
71.83	8.48	0.3889	-0.0378	0.3334	-0.0553	0.2031	-0.1298	0.0570	-0.1381
72.83	8.53	0.3889	-0.0378	0.3334	-0.0553	0.2031	-0.1298	0.0570	-0.1381
73.83	8.59	0.3889	-0.0378	0.3334	-0.0553	0.2030	-0.1299	0.0570	-0.1381
74.83	8.65	0.3889	-0.0378	0.3334	-0.0553	0.2030	-0.1299	0.0569	-0.1382

Sample: Pond 11S, BH-1 @ 7.5 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.1998	-0.1331		
339.83	18.43					0.1998	-0.1331		
349.83	18.70					0.1998	-0.1331		
359.83	18.97					0.1998	-0.1331		
369.83	19.23					0.1998	-0.1331		
379.83	19.49					0.1997	-0.1332		
389.83	19.74					0.1997	-0.1332		
399.83	20.00					0.1997	-0.1332		
409.83	20.24					0.1993	-0.1336		
419.83	20.49					0.1988	-0.1341		
429.83	20.73					0.1988	-0.1341		
439.83	20.97					0.1987	-0.1342		
449.83	21.21					0.1987	-0.1342		
459.83	21.44					0.1983	-0.1346		
469.83	21.68					0.1983	-0.1346		
479.83	21.91					0.1982	-0.1347		
489.83	22.13					0.1982	-0.1347		
499.83	22.36					0.1982	-0.1347		
509.83	22.58					0.1982	-0.1347		
519.83	22.80					0.1980	-0.1349		
529.83	23.02					0.1980	-0.1349		
539.83	23.23					0.1980	-0.1349		
549.83	23.45					0.1979	-0.1350		
559.83	23.66					0.1978	-0.1351		
569.83	23.87					0.1976	-0.1353		
579.83	24.08					0.1976	-0.1353		
589.83	24.29					0.1976	-0.1353		
599.83	24.49					0.1976	-0.1353		
609.83	24.69					0.1972	-0.1357		
619.83	24.90					0.1971	-0.1358		
629.83	25.10					0.1971	-0.1358		
639.83	25.29					0.1971	-0.1358		
649.83	25.49					0.1971	-0.1358		
659.83	25.69					0.1970	-0.1359		
669.83	25.88					0.1970	-0.1359		
679.83	26.07					0.1970	-0.1359		
689.83	26.26					0.1969	-0.1360		
699.83	26.45					0.1969	-0.1360		
709.83	26.64					0.1969	-0.1360		
719.83	26.83					0.1969	-0.1360		
749.83	27.38					0.1961	-0.1368		
779.83	27.93					0.1960	-0.1369		
809.83	28.46					0.1960	-0.1369		
839.83	28.98					0.1958	-0.1371		
869.83	29.49					0.1957	-0.1372		
899.83	30.00					0.1953	-0.1376		

Sample: Pond 11S, BH-1 @ 7.5 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.3726	-0.0681	0.3056	-0.0525	0.2328	-0.0597	0.1555	-0.0614
11.00	3.32	0.3726	-0.0681	0.3054	-0.0527	0.2327	-0.0598	0.1554	-0.0615
11.17	3.34	0.3722	-0.0685	0.3053	-0.0528	0.2326	-0.0599	0.1554	-0.0615
11.33	3.37	0.3722	-0.0685	0.3053	-0.0528	0.2325	-0.0600	0.1554	-0.0615
11.50	3.39	0.3722	-0.0685	0.3053	-0.0528	0.2324	-0.0601	0.1554	-0.0615
11.67	3.42	0.3722	-0.0685	0.3053	-0.0528	0.2323	-0.0602	0.1554	-0.0615
11.83	3.44	0.3722	-0.0685	0.3053	-0.0528	0.2321	-0.0604	0.1554	-0.0615
12.00	3.46	0.3722	-0.0685	0.3053	-0.0528	0.2321	-0.0604	0.1554	-0.0615
12.17	3.49	0.3722	-0.0685	0.3053	-0.0528	0.2319	-0.0606	0.1548	-0.0621
12.33	3.51	0.3722	-0.0685	0.3053	-0.0528	0.2319	-0.0606	0.1547	-0.0622
12.50	3.54	0.3722	-0.0685	0.3053	-0.0528	0.2318	-0.0607	0.1546	-0.0623
12.67	3.56	0.3722	-0.0685	0.3043	-0.0538	0.2317	-0.0608	0.1546	-0.0623
12.83	3.58	0.3722	-0.0685	0.3043	-0.0538	0.2317	-0.0608	0.1546	-0.0623
13.00	3.61	0.3722	-0.0685	0.3043	-0.0538	0.2316	-0.0609	0.1546	-0.0623
13.17	3.63	0.3722	-0.0685	0.3043	-0.0538	0.2315	-0.0610	0.1546	-0.0623
13.33	3.65	0.3722	-0.0685	0.3043	-0.0538	0.2314	-0.0611	0.1546	-0.0623
13.50	3.67	0.3699	-0.0708	0.3043	-0.0538	0.2313	-0.0612	0.1542	-0.0627
13.67	3.70	0.3699	-0.0708	0.3043	-0.0538	0.2312	-0.0613	0.1541	-0.0628
13.83	3.72	0.3699	-0.0708	0.3043	-0.0538	0.2311	-0.0614	0.1540	-0.0629
14.00	3.74	0.3694	-0.0713	0.3037	-0.0544	0.2311	-0.0614	0.1540	-0.0629
14.17	3.76	0.3693	-0.0714	0.3035	-0.0546	0.2310	-0.0615	0.1539	-0.0630
14.33	3.79	0.3692	-0.0715	0.3034	-0.0547	0.2309	-0.0616	0.1539	-0.0630
14.50	3.81	0.3692	-0.0715	0.3034	-0.0547	0.2308	-0.0617	0.1539	-0.0630
14.67	3.83	0.3692	-0.0715	0.3034	-0.0547	0.2308	-0.0617	0.1537	-0.0632
14.83	3.85	0.3692	-0.0715	0.3034	-0.0547	0.2308	-0.0617	0.1536	-0.0633
15.33	3.92	0.3688	-0.0719	0.3034	-0.0547	0.2306	-0.0619	0.1535	-0.0634
15.83	3.98	0.3683	-0.0724	0.3030	-0.0551	0.2304	-0.0621	0.1535	-0.0634
16.33	4.04	0.3681	-0.0726	0.3030	-0.0551	0.2302	-0.0623	0.1532	-0.0637
16.83	4.10	0.3681	-0.0726	0.3025	-0.0556	0.2300	-0.0625	0.1532	-0.0637
17.33	4.16	0.3674	-0.0733	0.3025	-0.0556	0.2300	-0.0625	0.1532	-0.0637
17.83	4.22	0.3673	-0.0734	0.3022	-0.0559	0.2298	-0.0627	0.1526	-0.0643
18.33	4.28	0.3673	-0.0734	0.3020	-0.0561	0.2298	-0.0627	0.1526	-0.0643
18.83	4.34	0.3673	-0.0734	0.3020	-0.0561	0.2295	-0.0630	0.1526	-0.0643
19.33	4.40	0.3673	-0.0734	0.3020	-0.0561	0.2295	-0.0630	0.1526	-0.0643
19.83	4.45	0.3664	-0.0743	0.3020	-0.0561	0.2292	-0.0633	0.1526	-0.0643
20.33	4.51	0.3664	-0.0743	0.3020	-0.0561	0.2291	-0.0634	0.1521	-0.0648
20.83	4.56	0.3664	-0.0743	0.3020	-0.0561	0.2291	-0.0634	0.1521	-0.0648
21.33	4.62	0.3664	-0.0743	0.3020	-0.0561	0.2289	-0.0636	0.1518	-0.0651
21.83	4.67	0.3658	-0.0749	0.301	-0.0571	0.2288	-0.0637	0.1517	-0.0652
22.33	4.73	0.3657	-0.0750	0.3011	-0.0570	0.2287	-0.0638	0.1517	-0.0652
22.83	4.78	0.3657	-0.0750	0.3011	-0.0570	0.2287	-0.0638	0.1515	-0.0654
23.33	4.83	0.3657	-0.0750	0.3011	-0.0570	0.2285	-0.0640	0.1514	-0.0655
23.83	4.88	0.3657	-0.0750	0.3007	-0.0574	0.2285	-0.0640	0.1513	-0.0656
24.33	4.93	0.3657	-0.0750	0.3007	-0.0574	0.2282	-0.0643	0.1513	-0.0656
24.83	4.98	0.3657	-0.0750	0.3005	-0.0576	0.2282	-0.0643	0.1513	-0.0656
25.33	5.03	0.3649	-0.0758	0.3005	-0.0576	0.2282	-0.0643	0.1513	-0.0656
25.83	5.08	0.3649	-0.0758	0.3004	-0.0577	0.2280	-0.0645	0.1509	-0.0660
26.33	5.13	0.3648	-0.0759	0.3004	-0.0577	0.2280	-0.0645	0.1509	-0.0660
26.83	5.18	0.3648	-0.0759	0.3004	-0.0577	0.2278	-0.0647	0.1509	-0.0660
27.33	5.23	0.3648	-0.0759	0.3001	-0.0580	0.2278	-0.0647	0.1507	-0.0662
27.83	5.28	0.3648	-0.0759	0.3001	-0.0580	0.2278	-0.0647	0.1506	-0.0663
28.33	5.32	0.3648	-0.0759	0.2999	-0.0582	0.2276	-0.0649	0.1506	-0.0663
28.83	5.37	0.3644	-0.0763	0.2998	-0.0583	0.2276	-0.0649	0.1505	-0.0664
29.33	5.42	0.3643	-0.0764	0.2998	-0.0583	0.2274	-0.0651	0.1504	-0.0665
29.83	5.46	0.3643	-0.0764	0.2998	-0.0583	0.2274	-0.0651	0.1503	-0.0666
30.33	5.51	0.3642	-0.0765	0.2997	-0.0584	0.2273	-0.0652	0.1502	-0.0667
30.83	5.55	0.3641	-0.0766	0.2997	-0.0584	0.2273	-0.0652	0.1501	-0.0668
31.33	5.60	0.3641	-0.0766	0.2997	-0.0584	0.2273	-0.0652	0.1501	-0.0668
31.83	5.64	0.3641	-0.0766	0.2995	-0.0586	0.2271	-0.0654	0.1501	-0.0668
32.33	5.69	0.3640	-0.0767	0.2995	-0.0586	0.2270	-0.0655	0.1499	-0.0670
32.83	5.73	0.3640	-0.0767	0.2995	-0.0586	0.2269	-0.0656	0.1499	-0.0670
33.33	5.77	0.3640	-0.0767	0.2993	-0.0588	0.2269	-0.0656	0.1499	-0.0670
33.83	5.82	0.3639	-0.0768	0.2993	-0.0588	0.2268	-0.0657	0.1499	-0.0670
34.33	5.86	0.3639	-0.0768	0.2993	-0.0588	0.2268	-0.0657	0.1497	-0.0672
34.83	5.90	0.3638	-0.0769	0.2993	-0.0588	0.2268	-0.0657	0.1497	-0.0672

Sample: Pond 11S, BH-1 @ 7.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3637	-0.0770	0.2993	-0.0588	0.2268	-0.0657	0.1497	-0.0672
35.83	5.99	0.3637	-0.0770	0.2990	-0.0591	0.2268	-0.0657	0.1497	-0.0672
36.33	6.03	0.3637	-0.0770	0.2989	-0.0592	0.2265	-0.0660	0.1494	-0.0675
36.83	6.07	0.3636	-0.0771	0.2989	-0.0592	0.2265	-0.0660	0.1494	-0.0675
37.33	6.11	0.3635	-0.0772	0.2989	-0.0592	0.2265	-0.0660	0.1493	-0.0676
37.83	6.15	0.3634	-0.0773	0.2988	-0.0593	0.2264	-0.0661	0.1493	-0.0676
38.33	6.19	0.3634	-0.0773	0.2988	-0.0593	0.2264	-0.0661	0.1493	-0.0676
38.83	6.23	0.3634	-0.0773	0.2988	-0.0593	0.2264	-0.0661	0.1493	-0.0676
39.33	6.27	0.3634	-0.0773	0.2988	-0.0593	0.2263	-0.0662	0.1490	-0.0679
39.83	6.31	0.3634	-0.0773	0.2987	-0.0594	0.2263	-0.0662	0.1490	-0.0679
40.33	6.35	0.3634	-0.0773	0.2987	-0.0594	0.2261	-0.0664	0.1490	-0.0679
40.83	6.39	0.3632	-0.0775	0.2986	-0.0595	0.2261	-0.0664	0.1490	-0.0679
41.33	6.43	0.3632	-0.0775	0.2986	-0.0595	0.2260	-0.0665	0.1490	-0.0679
41.83	6.47	0.3632	-0.0775	0.2986	-0.0595	0.2260	-0.0665	0.1490	-0.0679
42.33	6.51	0.3632	-0.0775	0.2985	-0.0596	0.2260	-0.0665	0.1490	-0.0679
42.83	6.54	0.3631	-0.0776	0.2985	-0.0596	0.2260	-0.0665	0.1487	-0.0682
43.33	6.58	0.3631	-0.0776	0.2985	-0.0596	0.2260	-0.0665	0.1487	-0.0682
43.83	6.62	0.3631	-0.0776	0.2984	-0.0597	0.2260	-0.0665	0.1486	-0.0683
44.33	6.66	0.3630	-0.0777	0.2984	-0.0597	0.2260	-0.0665	0.1486	-0.0683
44.83	6.70	0.3630	-0.0777	0.2984	-0.0597	0.2256	-0.0669	0.1485	-0.0684
45.33	6.73	0.3630	-0.0777	0.2983	-0.0598	0.2256	-0.0669	0.1484	-0.0685
45.83	6.77	0.3630	-0.0777	0.2983	-0.0598	0.2256	-0.0669	0.1484	-0.0685
46.33	6.81	0.3630	-0.0777	0.2983	-0.0598	0.2256	-0.0669	0.1484	-0.0685
46.83	6.84	0.3630	-0.0777	0.2981	-0.0600	0.2256	-0.0669	0.1484	-0.0685
47.33	6.88	0.3630	-0.0777	0.2981	-0.0600	0.2256	-0.0669	0.1483	-0.0686
47.83	6.92	0.3630	-0.0777	0.2981	-0.0600	0.2255	-0.0670	0.1483	-0.0686
48.33	6.95	0.3628	-0.0779	0.2981	-0.0600	0.2254	-0.0671	0.1481	-0.0688
48.83	6.99	0.3628	-0.0779	0.2981	-0.0600	0.2254	-0.0671	0.1481	-0.0688
49.33	7.02	0.3628	-0.0779	0.2981	-0.0600	0.2254	-0.0671	0.1481	-0.0688
49.83	7.06	0.3628	-0.0779	0.2979	-0.0602	0.2253	-0.0672	0.1481	-0.0688
50.33	7.09	0.3627	-0.0780	0.2979	-0.0602	0.2253	-0.0672	0.1480	-0.0689
50.83	7.13	0.3627	-0.0780	0.2979	-0.0602	0.2253	-0.0672	0.1480	-0.0689
51.33	7.16	0.3627	-0.0780	0.2979	-0.0602	0.2252	-0.0673	0.1480	-0.0689
51.83	7.20	0.3627	-0.0780	0.2979	-0.0602	0.2252	-0.0673	0.1480	-0.0689
52.33	7.23	0.3627	-0.0780	0.2979	-0.0602	0.2251	-0.0674	0.1479	-0.0690
52.83	7.27	0.3625	-0.0782	0.2979	-0.0602	0.2251	-0.0674	0.1479	-0.0690
53.33	7.30	0.3625	-0.0782	0.2978	-0.0603	0.2251	-0.0674	0.1478	-0.0691
53.83	7.34	0.3625	-0.0782	0.2978	-0.0603	0.2250	-0.0675	0.1478	-0.0691
54.33	7.37	0.3625	-0.0782	0.2978	-0.0603	0.2250	-0.0675	0.1478	-0.0691
54.83	7.40	0.3625	-0.0782	0.2978	-0.0603	0.2250	-0.0675	0.1478	-0.0691
55.33	7.44	0.3625	-0.0782	0.2978	-0.0603	0.2249	-0.0676	0.1476	-0.0693
55.83	7.47	0.3625	-0.0782	0.2977	-0.0604	0.2249	-0.0676	0.1476	-0.0693
56.33	7.51	0.3625	-0.0782	0.2977	-0.0604	0.2248	-0.0677	0.1476	-0.0693
56.83	7.54	0.3624	-0.0783	0.2976	-0.0605	0.2248	-0.0677	0.1475	-0.0694
57.33	7.57	0.3623	-0.0784	0.2976	-0.0605	0.2248	-0.0677	0.1475	-0.0694
57.83	7.60	0.3623	-0.0784	0.2976	-0.0605	0.2248	-0.0677	0.1475	-0.0694
58.33	7.64	0.3623	-0.0784	0.2975	-0.0606	0.2247	-0.0678	0.1474	-0.0695
58.83	7.67	0.3623	-0.0784	0.2975	-0.0606	0.2247	-0.0678	0.1474	-0.0695
59.33	7.70	0.3623	-0.0784	0.2975	-0.0606	0.2247	-0.0678	0.1474	-0.0695
59.83	7.74	0.3623	-0.0784	0.2975	-0.0606	0.2247	-0.0678	0.1474	-0.0695
60.83	7.80	0.3623	-0.0784	0.2974	-0.0607	0.2246	-0.0679	0.1472	-0.0697
61.83	7.86	0.3623	-0.0784	0.2973	-0.0608	0.2245	-0.0680	0.1472	-0.0697
62.83	7.93	0.3622	-0.0785	0.2973	-0.0608	0.2245	-0.0680	0.1472	-0.0697
63.83	7.99	0.3622	-0.0785	0.2973	-0.0608	0.2244	-0.0681	0.1471	-0.0698
64.83	8.05	0.3622	-0.0785	0.2972	-0.0609	0.2243	-0.0682	0.1470	-0.0699
65.83	8.11	0.3621	-0.0786	0.2971	-0.0610	0.2243	-0.0682	0.1470	-0.0699
66.83	8.18	0.3621	-0.0786	0.2971	-0.0610	0.2242	-0.0683	0.1469	-0.0700
67.83	8.24	0.3621	-0.0786	0.2970	-0.0611	0.2242	-0.0683	0.1468	-0.0701
68.83	8.30	0.3620	-0.0787	0.2970	-0.0611	0.2241	-0.0684	0.1468	-0.0701
69.83	8.36	0.3620	-0.0787	0.2970	-0.0611	0.2241	-0.0684	0.1467	-0.0702
70.83	8.42	0.3620	-0.0787	0.2970	-0.0611	0.2240	-0.0685	0.1467	-0.0702
71.83	8.48	0.3619	-0.0788	0.2970	-0.0611	0.2239	-0.0686	0.1466	-0.0703
72.83	8.53	0.3619	-0.0788	0.2969	-0.0612	0.2239	-0.0686	0.1466	-0.0703
73.83	8.59	0.3619	-0.0788	0.2969	-0.0612	0.2239	-0.0686	0.1466	-0.0703
74.83	8.65	0.3619	-0.0788	0.2968	-0.0613	0.2239	-0.0686	0.1466	-0.0703

Sample: Pond 11S, BH-1 @ 7.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.3619	-0.0788	0.2968	-0.0613	0.2239	-0.0686	0.1465	-0.0704
76.83	8.77	0.3618	-0.0789	0.2968	-0.0613	0.2238	-0.0687	0.1465	-0.0704
77.83	8.82	0.3618	-0.0789	0.2967	-0.0614	0.2238	-0.0687	0.1464	-0.0705
78.83	8.88	0.3618	-0.0789	0.2967	-0.0614	0.2238	-0.0687	0.1464	-0.0705
79.83	8.93	0.3618	-0.0789	0.2967	-0.0614	0.2238	-0.0687	0.1463	-0.0706
80.83	8.99	0.3617	-0.0790	0.2967	-0.0614	0.2238	-0.0687	0.1463	-0.0706
81.83	9.05	0.3617	-0.0790	0.2966	-0.0615	0.2236	-0.0689	0.1463	-0.0706
82.83	9.10	0.3617	-0.0790	0.2966	-0.0615	0.2235	-0.0690	0.1462	-0.0707
83.83	9.16	0.3617	-0.0790	0.2965	-0.0616	0.2235	-0.0690	0.1462	-0.0707
84.83	9.21	0.3617	-0.0790	0.2965	-0.0616	0.2235	-0.0690	0.1461	-0.0708
85.83	9.26	0.3617	-0.0790	0.2965	-0.0616	0.2234	-0.0691	0.1461	-0.0708
86.83	9.32	0.3616	-0.0791	0.2965	-0.0616	0.2233	-0.0692	0.1460	-0.0709
87.83	9.37	0.3616	-0.0791	0.2964	-0.0617	0.2233	-0.0692	0.1460	-0.0709
88.83	9.43	0.3616	-0.0791	0.2964	-0.0617	0.2233	-0.0692	0.1459	-0.0710
89.83	9.48	0.3616	-0.0791	0.2964	-0.0617	0.2232	-0.0693	0.1459	-0.0710
90.83	9.53	0.3616	-0.0791	0.2964	-0.0617	0.2232	-0.0693	0.1458	-0.0711
91.83	9.58	0.3615	-0.0792	0.2963	-0.0618	0.2232	-0.0693	0.1458	-0.0711
92.83	9.64	0.3615	-0.0792	0.2963	-0.0618	0.2231	-0.0694	0.1457	-0.0712
93.83	9.69	0.3615	-0.0792	0.2963	-0.0618	0.2231	-0.0694	0.1457	-0.0712
94.83	9.74	0.3615	-0.0792	0.2962	-0.0619	0.2230	-0.0695	0.1456	-0.0713
95.83	9.79	0.3615	-0.0792	0.2962	-0.0619	0.2230	-0.0695	0.1456	-0.0713
96.83	9.84	0.3615	-0.0792	0.2962	-0.0619	0.2230	-0.0695	0.1456	-0.0713
97.83	9.89	0.3615	-0.0792	0.2962	-0.0619	0.2230	-0.0695	0.1455	-0.0714
98.83	9.94	0.3615	-0.0792	0.2962	-0.0619	0.2230	-0.0695	0.1455	-0.0714
99.83	9.99	0.3615	-0.0792	0.2961	-0.0620	0.2230	-0.0695	0.1455	-0.0714
100.83	10.04	0.3615	-0.0792	0.2961	-0.0620	0.2230	-0.0695	0.1455	-0.0714
101.83	10.09	0.3614	-0.0793	0.2961	-0.0620	0.2229	-0.0696	0.1455	-0.0714
102.83	10.14	0.3614	-0.0793	0.2961	-0.0620	0.2228	-0.0697	0.1455	-0.0714
103.83	10.19	0.3614	-0.0793	0.2960	-0.0621	0.2228	-0.0697	0.1454	-0.0715
104.83	10.24	0.3614	-0.0793	0.2960	-0.0621	0.2228	-0.0697	0.1454	-0.0715
105.83	10.29	0.3614	-0.0793	0.2960	-0.0621	0.2227	-0.0698	0.1454	-0.0715
106.83	10.34	0.3614	-0.0793	0.2960	-0.0621	0.2227	-0.0698	0.1453	-0.0716
107.83	10.38	0.3614	-0.0793	0.2960	-0.0621	0.2227	-0.0698	0.1453	-0.0716
108.83	10.43	0.3613	-0.0794	0.2960	-0.0621	0.2227	-0.0698	0.1453	-0.0716
109.83	10.48	0.3613	-0.0794	0.2959	-0.0622	0.2226	-0.0699	0.1453	-0.0716
110.83	10.53	0.3613	-0.0794	0.2959	-0.0622	0.2226	-0.0699	0.1453	-0.0716
111.83	10.58	0.3613	-0.0794	0.2958	-0.0623	0.2226	-0.0699	0.1451	-0.0718
112.83	10.62	0.3613	-0.0794	0.2958	-0.0623	0.2225	-0.0700	0.1451	-0.0718
113.83	10.67	0.3613	-0.0794	0.2958	-0.0623	0.2225	-0.0700	0.1451	-0.0718
114.83	10.72	0.3613	-0.0794	0.2957	-0.0624	0.2224	-0.0701	0.1450	-0.0719
115.83	10.76	0.3613	-0.0794	0.2957	-0.0624	0.2224	-0.0701	0.1450	-0.0719
116.83	10.81	0.3612	-0.0795	0.2956	-0.0625	0.2224	-0.0701	0.1450	-0.0719
117.83	10.86	0.3612	-0.0795	0.2956	-0.0625	0.2224	-0.0701	0.1450	-0.0719
118.83	10.90	0.3612	-0.0795	0.2956	-0.0625	0.2223	-0.0702	0.1449	-0.0720
119.83	10.95	0.3612	-0.0795	0.2956	-0.0625	0.2223	-0.0702	0.1449	-0.0720
129.83	11.39	0.3611	-0.0796	0.2953	-0.0628	0.2221	-0.0704	0.1446	-0.0723
139.83	11.83	0.3609	-0.0798	0.2952	-0.0629	0.2219	-0.0706	0.1444	-0.0725
149.83	12.24	0.3608	-0.0799	0.2950	-0.0631	0.2216	-0.0709	0.1442	-0.0727
159.83	12.64	0.3608	-0.0799	0.2949	-0.0632	0.2214	-0.0711	0.1440	-0.0729
169.83	13.03	0.3607	-0.0800	0.2946	-0.0635	0.2212	-0.0713	0.1438	-0.0731
179.83	13.41	0.3606	-0.0801	0.2945	-0.0636	0.2212	-0.0713	0.1437	-0.0732
189.83	13.78	0.3605	-0.0802	0.2944	-0.0637	0.2210	-0.0715	0.1435	-0.0734
199.83	14.14	0.3603	-0.0804	0.2944	-0.0637	0.2208	-0.0717	0.1432	-0.0737
209.83	14.49	0.3603	-0.0804	0.2943	-0.0638	0.2206	-0.0719	0.1431	-0.0738
219.83	14.83	0.3602	-0.0805	0.2942	-0.0639	0.2205	-0.0720	0.1429	-0.0740
229.83	15.16	0.3601	-0.0806	0.2941	-0.0640	0.2204	-0.0721	0.1428	-0.0741
239.83	15.49	0.3600	-0.0807	0.2939	-0.0642	0.2203	-0.0722	0.1427	-0.0742
249.83	15.81	0.3600	-0.0807	0.2938	-0.0643	0.2202	-0.0723	0.1425	-0.0744
259.83	16.12	0.3598	-0.0809	0.2938	-0.0643	0.2200	-0.0725	0.1424	-0.0745
269.83	16.43	0.3598	-0.0809	0.2937	-0.0644	0.2199	-0.0726	0.1423	-0.0746
279.83	16.73	0.3597	-0.0810	0.2936	-0.0645	0.2198	-0.0727	0.1421	-0.0748
289.83	17.02	0.3597	-0.0810	0.2936	-0.0645	0.2197	-0.0728	0.1420	-0.0749
299.83	17.32	0.3597	-0.0810	0.2935	-0.0646	0.2196	-0.0729	0.1420	-0.0749
309.83	17.60	0.3597	-0.0810	0.2935	-0.0646	0.2195	-0.0730	0.1418	-0.0751
319.83	17.88	0.3597	-0.0810	0.2934	-0.0647	0.2195	-0.0730	0.1417	-0.0752

Sample: Pond 11S, BH-1 @ 7.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.3597	-0.0810	0.2933	-0.0648	0.2194	-0.0731	0.1417	-0.0752
339.83	18.43	0.3596	-0.0811	0.2933	-0.0648	0.2194	-0.0731	0.1415	-0.0754
349.83	18.70	0.3596	-0.0811	0.2932	-0.0649	0.2193	-0.0732	0.1414	-0.0755
359.83	18.97	0.3596	-0.0811	0.2932	-0.0649	0.2192	-0.0733	0.1413	-0.0756
369.83	19.23	0.3595	-0.0812	0.2931	-0.0650	0.2192	-0.0733	0.1412	-0.0757
379.83	19.49	0.3595	-0.0812	0.2931	-0.0650	0.2190	-0.0735	0.1411	-0.0758
389.83	19.74	0.3595	-0.0812	0.2930	-0.0651	0.2190	-0.0735	0.1411	-0.0758
399.83	20.00	0.3594	-0.0813	0.2929	-0.0652	0.2189	-0.0736	0.1411	-0.0758
409.83	20.24	0.3594	-0.0813	0.2929	-0.0652	0.2189	-0.0736	0.1410	-0.0759
419.83	20.49	0.3594	-0.0813	0.2928	-0.0653	0.2188	-0.0737	0.1409	-0.0760
429.83	20.73	0.3593	-0.0814	0.2928	-0.0653	0.2188	-0.0737	0.1408	-0.0761
439.83	20.97	0.3592	-0.0815	0.2927	-0.0654	0.2187	-0.0738	0.1407	-0.0762
449.83	21.21	0.3592	-0.0815	0.2927	-0.0654	0.2187	-0.0738	0.1407	-0.0762
459.83	21.44	0.3592	-0.0815	0.2927	-0.0654	0.2186	-0.0739	0.1405	-0.0764
469.83	21.68	0.3592	-0.0815	0.2926	-0.0655	0.2186	-0.0739	0.1405	-0.0764
479.83	21.91	0.3591	-0.0816	0.2926	-0.0655	0.2186	-0.0739	0.1404	-0.0765
489.83	22.13	0.3591	-0.0816			0.2185	-0.0740	0.1403	-0.0766
499.83	22.36	0.3591	-0.0816			0.2185	-0.0740	0.1403	-0.0766
509.83	22.58	0.3591	-0.0816			0.2184	-0.0741	0.1403	-0.0766
519.83	22.80	0.3591	-0.0816			0.2184	-0.0741	0.1403	-0.0766
529.83	23.02	0.3591	-0.0816			0.2184	-0.0741	0.1402	-0.0767
539.83	23.23	0.3591	-0.0816			0.2184	-0.0741	0.1402	-0.0767
549.83	23.45	0.3591	-0.0816			0.2184	-0.0741	0.1401	-0.0768
559.83	23.66	0.3590	-0.0817			0.2183	-0.0742	0.1401	-0.0768
569.83	23.87	0.3590	-0.0817			0.2183	-0.0742	0.1401	-0.0768
579.83	24.08	0.3590	-0.0817			0.2183	-0.0742	0.1400	-0.0769
589.83	24.29	0.3590	-0.0817			0.2182	-0.0743	0.1400	-0.0769
599.83	24.49	0.3589	-0.0818			0.2182	-0.0743	0.1399	-0.0770
609.83	24.69	0.3589	-0.0818			0.2182	-0.0743	0.1399	-0.0770
619.83	24.90	0.3589	-0.0818			0.2182	-0.0743	0.1398	-0.0771
629.83	25.10	0.3589	-0.0818			0.2181	-0.0744	0.1398	-0.0771
639.83	25.29	0.3588	-0.0819			0.2181	-0.0744	0.1398	-0.0771
649.83	25.49	0.3589	-0.0818			0.2180	-0.0745	0.1397	-0.0772
659.83	25.69	0.3588	-0.0819			0.2180	-0.0745	0.1397	-0.0772
669.83	25.88	0.3588	-0.0819			0.2180	-0.0745	0.1397	-0.0772
679.83	26.07	0.3588	-0.0819			0.2180	-0.0745	0.1396	-0.0773
689.83	26.26	0.3587	-0.0820			0.2180	-0.0745	0.1396	-0.0773
699.83	26.45	0.3588	-0.0819			0.2180	-0.0745	0.1395	-0.0774
709.83	26.64	0.3588	-0.0819			0.2179	-0.0746	0.1395	-0.0774
719.83	26.83	0.3587	-0.0820			0.2179	-0.0746	0.1395	-0.0774
749.83	27.38	0.3587	-0.0820			0.2178	-0.0747	0.1394	-0.0775
779.83	27.93	0.3587	-0.0820			0.2178	-0.0747	0.1394	-0.0775
809.83	28.46	0.3586	-0.0821			0.2178	-0.0747	0.1394	-0.0775
839.83	28.98	0.3586	-0.0821			0.2177	-0.0748	0.1394	-0.0775
869.83	29.49	0.3585	-0.0822			0.2177	-0.0748	0.1393	-0.0776
899.83	30.00	0.3584	-0.0823			0.2176	-0.0749	0.1393	-0.0776
929.83	30.49	0.3584	-0.0823			0.2175	-0.0750	0.1392	-0.0777
959.83	30.98	0.3583	-0.0824			0.2175	-0.0750	0.1391	-0.0778
989.83	31.46	0.3583	-0.0824			0.2174	-0.0751	0.1391	-0.0778
1019.83	31.93	0.3583	-0.0824			0.2174	-0.0751	0.1390	-0.0779
1049.83	32.40	0.3582	-0.0825			0.2173	-0.0752	0.1389	-0.0780
1079.83	32.86	0.3582	-0.0825			0.2172	-0.0753	0.1389	-0.0780
1109.83	33.31	0.3581	-0.0826			0.2172	-0.0753	0.1389	-0.0780
1139.83	33.76					0.2170	-0.0755	0.1388	-0.0781
1169.83	34.20					0.2170	-0.0755	0.1388	-0.0781
1199.83	34.64					0.2170	-0.0755	0.1387	-0.0782
1229.83	35.07					0.2170	-0.0755	0.1386	-0.0783
1259.83	35.49					0.2169	-0.0756		

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 12S, BH-1 @ 13.5 feet
Sample Ht.	1.580 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.011 (cu-ft)
Phos Cont.	6.11 (%)
Init. M.C.	172.55 (%)
Init. M.C. (corr)	133.64 (%)
Final M.C.	80.58 (%)
Final M.C. (corr)	62.63 (%)
Dry Wt. of Soil/f	256.89 (g)
Dry Wt. of Soil/i	192.06 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	22.24
Phos. Wt. (g)	1.36
Dry Wt. (g)	8.16
Dry Wt. + Phos Wt. (g)	9.52
Water Wt. + Phos (g)	14.08
Water Wt. (g)	12.72
(final)	
Total Wet Wt. (g)	29.47
Phos. Wt. (g)	1.80
Dry Wt. (g)	16.32
Dry Wt. + Phos Wt. (g)	18.12
Water Wt. + Phos (g)	13.15
Water Wt. (g)	11.35

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry	Void Ratio (e)	Dry
						Density (pcf)		
						Calc. from final MC	Calc. from initial MC	
0.0010	0.4292	0.0060	1.5800	0	2.535	49.25	3.729	36.82
0.0250	0.4126	0.0166	1.5634	1.05	2.498	49.77	3.679	37.21
0.0500	0.3636	0.0243	1.5557	1.54	2.481	50.01	3.656	37.39
0.1000	0.3262	0.0360	1.5440	2.28	2.455	50.39	3.621	37.68
0.2500	0.2717	0.0575	1.5225	3.64	2.407	51.11	3.557	38.21
0.5000	0.1400	0.1355	1.4445	8.58	2.232	53.86	3.323	40.27
1.0000	0.0730	0.2111	1.3689	13.36	2.063	56.84	3.097	42.50
2.0000	0.3680	0.2873	1.2927	18.18	1.892	60.19	2.869	45.00
4.0000	0.2914	0.3521	1.2279	22.28	1.747	63.37	2.675	47.38

Note: Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4292	0.0000	0.3713	0.0000	0.3379	0.0000	0.2932	0.0000
0.17	0.41	0.4292	0.0000	0.3713	0.0000	0.3379	0.0000	0.2932	0.0000
0.33	0.58	0.4244	-0.0048	0.3699	-0.0014	0.3359	-0.0020	0.2866	-0.0066
0.50	0.71	0.4242	-0.0050	0.3689	-0.0024	0.3350	-0.0029	0.2850	-0.0082
0.67	0.82	0.4229	-0.0063	0.3686	-0.0027	0.3342	-0.0037	0.2830	-0.0102
0.83	0.91	0.4224	-0.0068	0.3681	-0.0032	0.3342	-0.0037	0.2797	-0.0135
1.00	1.00	0.4215	-0.0077	0.3676	-0.0037	0.3342	-0.0037	0.2776	-0.0156
1.17	1.08	0.4206	-0.0086	0.3672	-0.0041	0.3322	-0.0057	0.2756	-0.0176
1.33	1.15	0.4195	-0.0097	0.3666	-0.0047	0.3312	-0.0067	0.2748	-0.0184
1.50	1.22	0.4190	-0.0102	0.3665	-0.0048	0.3301	-0.0078	0.2733	-0.0199
1.67	1.29	0.4186	-0.0106	0.3665	-0.0048	0.3291	-0.0088	0.2721	-0.0211
1.83	1.35	0.4178	-0.0114	0.3665	-0.0048	0.3281	-0.0098	0.2717	-0.0215
2.00	1.41	0.4174	-0.0118	0.3652	-0.0061	0.3277	-0.0102	0.2717	-0.0215
2.17	1.47	0.4168	-0.0124	0.3650	-0.0063	0.3267	-0.0112	0.2717	-0.0215
2.33	1.53	0.4164	-0.0128	0.3648	-0.0065	0.3262	-0.0117	0.2717	-0.0215
2.50	1.58	0.4159	-0.0133	0.3644	-0.0069	0.3262	-0.0117	0.2717	-0.0215
2.67	1.63	0.4159	-0.0133	0.3642	-0.0071	0.3262	-0.0117	0.2717	-0.0215
2.83	1.68	0.4159	-0.0133	0.3637	-0.0076	0.3262	-0.0117	0.2717	-0.0215
3.00	1.73	0.4145	-0.0147	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
3.17	1.78	0.4140	-0.0152	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
3.33	1.83	0.4136	-0.0156	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
3.50	1.87	0.4134	-0.0158	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
3.67	1.91	0.4130	-0.0162	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
3.83	1.96	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.00	2.00	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.17	2.04	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.33	2.08	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.50	2.12	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.67	2.16	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
4.83	2.20	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.00	2.24	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.17	2.27	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.33	2.31	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.50	2.35	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.67	2.38	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
5.83	2.42	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.00	2.45	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.17	2.48	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.33	2.52	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.50	2.55	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.67	2.58	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
6.83	2.61	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.00	2.65	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.17	2.68	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.33	2.71	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.50	2.74	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.67	2.77	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
7.83	2.80	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.00	2.83	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.17	2.86	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.33	2.89	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.50	2.92	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.67	2.94	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
8.83	2.97	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.00	3.00	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.17	3.03	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.33	3.06	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.50	3.08	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.67	3.11	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
9.83	3.14	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
10.00	3.16	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
10.17	3.19	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
10.33	3.21	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
10.50	3.24	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
10.67	3.27	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.00	3.32	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.17	3.34	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.33	3.37	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.50	3.39	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.67	3.42	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
11.83	3.44	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.00	3.46	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.17	3.49	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.33	3.51	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.50	3.54	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.67	3.56	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
12.83	3.58	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.00	3.61	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.17	3.63	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.33	3.65	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.50	3.67	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.67	3.70	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
13.83	3.72	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.00	3.74	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.17	3.76	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.33	3.79	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.50	3.81	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.67	3.83	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
14.83	3.85	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
15.33	3.92	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
15.83	3.98	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
16.33	4.04	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
16.83	4.10	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
17.33	4.16	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
17.83	4.22	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
18.33	4.28	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
18.83	4.34	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
19.33	4.40	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
19.83	4.45	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
20.33	4.51	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
20.83	4.56	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
21.33	4.62	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
21.83	4.67	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
22.33	4.73	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
22.83	4.78	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
23.33	4.83	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
23.83	4.88	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
24.33	4.93	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
24.83	4.98	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
25.33	5.03	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
25.83	5.08	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
26.33	5.13	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
26.83	5.18	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
27.33	5.23	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
27.83	5.28	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
28.33	5.32	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
28.83	5.37	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
29.33	5.42	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
29.83	5.46	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
30.33	5.51	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
30.83	5.55	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
31.33	5.60	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
31.83	5.64	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
32.33	5.69	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
32.83	5.73	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
33.33	5.77	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
33.83	5.82	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
34.33	5.86	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
34.83	5.90	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215

Sample: Pond 12S, BH-1 @ 13.5 feet

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
76.83	8.77	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
77.83	8.82	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
78.83	8.88	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
79.83	8.93	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
80.83	8.99	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
81.83	9.05	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
82.83	9.10	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
83.83	9.16	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
84.83	9.21	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
85.83	9.26	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
86.83	9.32	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
87.83	9.37	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
88.83	9.43	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
89.83	9.48	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
90.83	9.53	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
91.83	9.58	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
92.83	9.64	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
93.83	9.69	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
94.83	9.74	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
95.83	9.79	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
96.83	9.84	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
97.83	9.89	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
98.83	9.94	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
99.83	9.99	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
100.83	10.04	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
101.83	10.09	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
102.83	10.14	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
103.83	10.19	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
104.83	10.24	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
105.83	10.29	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
106.83	10.34	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
107.83	10.38	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
108.83	10.43	0.4126	-0.0166	0.3636	-0.0077	0.3262	-0.0117	0.2717	-0.0215
109.83	10.48	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
110.83	10.53	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
111.83	10.58	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
112.83	10.62	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
113.83	10.67	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
114.83	10.72	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
115.83	10.76	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
116.83	10.81	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
117.83	10.86	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
118.83	10.90	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
119.83	10.95	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
129.83	11.39	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
139.83	11.83	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
149.83	12.24	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
159.83	12.64	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
169.83	13.03	0.4126	-0.0166			0.3262	-0.0117	0.2717	-0.0215
179.83	13.41					0.3262	-0.0117	0.2717	-0.0215
189.83	13.78					0.3262	-0.0117	0.2717	-0.0215
199.83	14.14					0.3262	-0.0117	0.2717	-0.0215
209.83	14.49					0.3262	-0.0117	0.2717	-0.0215
219.83	14.83					0.3262	-0.0117	0.2717	-0.0215
229.83	15.16					0.3262	-0.0117	0.2717	-0.0215
239.83	15.49					0.3262	-0.0117	0.2717	-0.0215
249.83	15.81					0.3262	-0.0117	0.2717	-0.0215
259.83	16.12					0.3262	-0.0117	0.2717	-0.0215
269.83	16.43					0.3262	-0.0117	0.2717	-0.0215
279.83	16.73					0.3262	-0.0117	0.2717	-0.0215
289.83	17.02					0.3262	-0.0117	0.2717	-0.0215
299.83	17.32					0.3262	-0.0117	0.2717	-0.0215
309.83	17.60					0.3262	-0.0117	0.2717	-0.0215
319.83	17.88					0.3262	-0.0117		

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.3262	-0.0117		
339.83	18.43					0.3262	-0.0117		
349.83	18.70					0.3262	-0.0117		
359.83	18.97					0.3262	-0.0117		
369.83	19.23					0.3262	-0.0117		
379.83	19.49					0.3262	-0.0117		
389.83	19.74					0.3262	-0.0117		
399.83	20.00					0.3262	-0.0117		
409.83	20.24					0.3262	-0.0117		
419.83	20.49					0.3262	-0.0117		
429.83	20.73					0.3262	-0.0117		
439.83	20.97					0.3262	-0.0117		
449.83	21.21					0.3262	-0.0117		
459.83	21.44					0.3262	-0.0117		
469.83	21.68					0.3262	-0.0117		
479.83	21.91					0.3262	-0.0117		
489.83	22.13					0.3262	-0.0117		
499.83	22.36					0.3262	-0.0117		
509.83	22.58					0.3262	-0.0117		
519.83	22.80					0.3262	-0.0117		
529.83	23.02					0.3262	-0.0117		
539.83	23.23					0.3262	-0.0117		
549.83	23.45					0.3262	-0.0117		
559.83	23.66					0.3262	-0.0117		
569.83	23.87					0.3262	-0.0117		
579.83	24.08					0.3262	-0.0117		
589.83	24.29					0.3262	-0.0117		
599.83	24.49					0.3262	-0.0117		
609.83	24.69					0.3262	-0.0117		
619.83	24.90					0.3262	-0.0117		
629.83	25.10					0.3262	-0.0117		
639.83	25.29					0.3262	-0.0117		
649.83	25.49					0.3262	-0.0117		
659.83	25.69					0.3262	-0.0117		
669.83	25.88					0.3262	-0.0117		
679.83	26.07					0.3262	-0.0117		
689.83	26.26					0.3262	-0.0117		
699.83	26.45					0.3262	-0.0117		
709.83	26.64					0.3262	-0.0117		
719.83	26.83					0.3262	-0.0117		
749.83	27.38					0.3262	-0.0117		
779.83	27.93					0.3262	-0.0117		
809.83	28.46					0.3262	-0.0117		
839.83	28.98					0.3262	-0.0117		
869.83	29.49					0.3262	-0.0117		
899.83	30.00					0.3262	-0.0117		
929.83	30.49					0.3262	-0.0117		

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.2180	0.0000	0.1486	0.0000	0.4442	0.0000	0.3562	0.0000
0.17	0.41	0.2180	0.0000	0.1485	-0.0001	0.4442	0.0000	0.3562	0.0000
0.33	0.58	0.2180	0.0000	0.1407	-0.0079	0.4442	0.0000	0.3562	0.0000
0.50	0.71	0.2180	0.0000	0.1312	-0.0174	0.4332	-0.0110	0.3562	0.0000
0.67	0.82	0.2180	0.0000	0.1289	-0.0197	0.4230	-0.0212	0.3562	0.0000
0.83	0.91	0.2022	-0.0158	0.1289	-0.0197	0.4120	-0.0322	0.3227	-0.0335
1.00	1.00	0.1997	-0.0183	0.1289	-0.0197	0.4073	-0.0369	0.3166	-0.0396
1.17	1.08	0.1984	-0.0196	0.1179	-0.0307	0.4016	-0.0426	0.3131	-0.0431
1.33	1.15	0.1963	-0.0217	0.1151	-0.0335	0.4016	-0.0426	0.3093	-0.0469
1.50	1.22	0.1951	-0.0229	0.1131	-0.0355	0.4016	-0.0426	0.3070	-0.0492
1.67	1.29	0.1936	-0.0244	0.1108	-0.0378	0.4016	-0.0426	0.3044	-0.0518
1.83	1.35	0.1914	-0.0266	0.1085	-0.0401	0.4016	-0.0426	0.3032	-0.0530
2.00	1.41	0.1906	-0.0274	0.1071	-0.0415	0.4016	-0.0426	0.3020	-0.0542
2.17	1.47	0.1898	-0.0282	0.1054	-0.0432	0.4016	-0.0426	0.3008	-0.0554
2.33	1.53	0.1890	-0.0290	0.1047	-0.0439	0.4016	-0.0426	0.2998	-0.0564
2.50	1.58	0.1881	-0.0299	0.1047	-0.0439	0.4016	-0.0426	0.2988	-0.0574
2.67	1.63	0.1881	-0.0299	0.1016	-0.0470	0.4016	-0.0426	0.2983	-0.0579
2.83	1.68	0.1862	-0.0318	0.1016	-0.0470	0.4016	-0.0426	0.2975	-0.0587
3.00	1.73	0.1857	-0.0323	0.1000	-0.0486	0.4016	-0.0426	0.2970	-0.0592
3.17	1.78	0.1857	-0.0323	0.0996	-0.0490	0.4016	-0.0426	0.2965	-0.0597
3.33	1.83	0.1857	-0.0323	0.0981	-0.0505	0.4016	-0.0426	0.2961	-0.0601
3.50	1.87	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2961	-0.0601
3.67	1.91	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2961	-0.0601
3.83	1.96	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2961	-0.0601
4.00	2.00	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2961	-0.0601
4.17	2.04	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2945	-0.0617
4.33	2.08	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2942	-0.0620
4.50	2.12	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2940	-0.0622
4.67	2.16	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2937	-0.0625
4.83	2.20	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2935	-0.0627
5.00	2.24	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2934	-0.0628
5.17	2.27	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2932	-0.0630
5.33	2.31	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2931	-0.0631
5.50	2.35	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2928	-0.0634
5.67	2.38	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2927	-0.0635
5.83	2.42	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2927	-0.0635
6.00	2.45	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2927	-0.0635
6.17	2.48	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2923	-0.0639
6.33	2.52	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2921	-0.0641
6.50	2.55	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2920	-0.0642
6.67	2.58	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2919	-0.0643
6.83	2.61	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2918	-0.0644
7.00	2.65	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2917	-0.0645
7.17	2.68	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2916	-0.0646
7.33	2.71	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2915	-0.0647
7.50	2.74	0.1857	-0.0323	0.0975	-0.0511	0.4016	-0.0426	0.2914	-0.0648
7.67	2.77	0.1857	-0.0323	0.0975	-0.0511	0.3683	-0.0759	0.2914	-0.0648
7.83	2.80	0.1857	-0.0323	0.0975	-0.0511	0.3683	-0.0759	0.2914	-0.0648
8.00	2.83	0.1857	-0.0323	0.0975	-0.0511	0.3681	-0.0761	0.2914	-0.0648
8.17	2.86	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
8.33	2.89	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
8.50	2.92	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
8.67	2.94	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
8.83	2.97	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.00	3.00	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.17	3.03	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.33	3.06	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.50	3.08	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.67	3.11	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
9.83	3.14	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
10.00	3.16	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
10.17	3.19	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
10.33	3.21	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
10.50	3.24	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648
10.67	3.27	0.1857	-0.0323	0.0975	-0.0511	0.3680	-0.0762	0.2914	-0.0648

Sample: Pond 12S, BH-1 @ 13.5 feet

Sample: Pond 12S, BH-1 @ 13.5 feet

Sample: Pond 12S, BH-1 @ 13.5 feet

Sample: Pond 12S, BH-1 @ 13.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
339.83	18.43	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
349.83	18.70	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
359.83	18.97	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
369.83	19.23	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
379.83	19.49	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
389.83	19.74	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
399.83	20.00	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
409.83	20.24	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
419.83	20.49	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
429.83	20.73	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
439.83	20.97	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
449.83	21.21	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
459.83	21.44	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
469.83	21.68	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
479.83	21.91	0.1400	-0.0780	0.0730	-0.0756	0.3680	-0.0762	0.2914	-0.0648
489.83	22.13	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
499.83	22.36	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
509.83	22.58	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
519.83	22.80	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
529.83	23.02	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
539.83	23.23	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
549.83	23.45	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
559.83	23.66	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
569.83	23.87	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
579.83	24.08	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
589.83	24.29	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
599.83	24.49	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
609.83	24.69	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
619.83	24.90	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
629.83	25.10	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
639.83	25.29	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
649.83	25.49	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
659.83	25.69	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
669.83	25.88	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
679.83	26.07	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
689.83	26.26	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
699.83	26.45	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
709.83	26.64	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
719.83	26.83	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
749.83	27.38	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
779.83	27.93	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
809.83	28.46	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
839.83	28.98	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
869.83	29.49	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
899.83	30.00	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
929.83	30.49	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
959.83	30.98	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
989.83	31.46	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
1019.83	31.93	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
1049.83	32.40	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
1079.83	32.86	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
1109.83	33.31	0.1400	-0.0780			0.3680	-0.0762	0.2914	-0.0648
1139.83	33.76					0.3680	-0.0762	0.2914	-0.0648
1169.83	34.20					0.3680	-0.0762	0.2914	-0.0648
1199.83	34.64					0.3680	-0.0762	0.2914	-0.0648
1229.83	35.07					0.3680	-0.0762	0.2914	-0.0648

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 12S, BH-2 @ 16.5 feet
Sample Ht.	1.875 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.014 (cu-ft)
Phos Cont.	4.52 (%)
Init. M.C.	172.92 (%)
Init. M.C. (corr)	142.95 (%)
Final M.C.	109.57 (%)
Final M.C. (corr)	91.43 (%)
Dry Wt. of Soil/f	241.55 (g)
Dry Wt. of Soil/i	216.05 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	19.35
Phos. Wt. (g)	0.87
Dry Wt. (g)	7.09
Dry Wt. + Phos Wt. (g)	7.96
Water Wt. + Phos (g)	12.26
Water Wt. (g)	11.39
(final)	
Total Wet Wt. (g)	29.57
Phos. Wt. (g)	1.34
Dry Wt. (g)	14.11
Dry Wt. + Phos Wt. (g)	15.45
Water Wt. + Phos (g)	15.46
Water Wt. (g)	14.12

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry	Void Ratio (e)	Dry
						Density (pcf)		Density (pcf)
0.0010	0.4034	0.0000	1.8750	0	3.462	39.02	3.988	34.90
0.0250	0.3785	0.0249	1.8501	1.33	3.402	39.55	3.922	35.37
0.0500	0.3655	0.0379	1.8371	2.02	3.371	39.83	3.887	35.62
0.1000	0.3439	0.0593	1.8157	3.16	3.321	40.29	3.831	36.04
0.2500	0.3023	0.1009	1.7741	5.38	3.222	41.24	3.720	36.89
0.5000	0.2468	0.1566	1.7184	8.35	3.089	42.58	3.572	38.08
1.0000	0.1736	0.2290	1.6460	12.21	2.917	44.45	3.379	39.76
2.0000	0.0863	0.3163	1.5587	16.87	2.709	46.94	3.147	41.98
4.0000	0.3471	0.3827	1.4923	20.41	2.551	49.03	2.970	43.85

Note: Initial MC not taken from actual sample tested, but from same sample jar.
 Final MC taken from actual sample tested.
 Void Ratio (e), calculated from final MC likely to be most accurate.
 Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 12S, BH-2 @ 16.5 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4034	0.0000	0.3785	0.0000	0.3653	0.0000	0.3439	0.0000
0.17	0.41	0.4034	0.0000	0.3785	0.0000	0.3653	0.0000	0.3439	0.0000
0.33	0.58	0.4025	-0.0009	0.3779	-0.0006	0.3655	0.0002	0.3402	-0.0037
0.50	0.71	0.4024	-0.0010	0.3777	-0.0008	0.3628	-0.0025	0.3391	-0.0048
0.67	0.82	0.4020	-0.0014	0.3777	-0.0008	0.3624	-0.0029	0.3379	-0.0060
0.83	0.91	0.4018	-0.0016	0.3777	-0.0008	0.3622	-0.0031	0.3371	-0.0068
1.00	1.00	0.4017	-0.0017	0.3773	-0.0012	0.3618	-0.0035	0.3359	-0.0080
1.17	1.08	0.4015	-0.0019	0.3772	-0.0013	0.3615	-0.0038	0.3354	-0.0085
1.33	1.15	0.4014	-0.0020	0.3770	-0.0015	0.3613	-0.0040	0.3343	-0.0096
1.50	1.22	0.4011	-0.0023	0.3769	-0.0016	0.3612	-0.0041	0.3338	-0.0101
1.67	1.29	0.4009	-0.0025	0.3767	-0.0018	0.3608	-0.0045	0.3329	-0.0110
1.83	1.35	0.4007	-0.0027	0.3766	-0.0019	0.3606	-0.0047	0.3324	-0.0115
2.00	1.41	0.4005	-0.0029	0.3766	-0.0019	0.3603	-0.0050	0.3316	-0.0123
2.17	1.47	0.4003	-0.0031	0.3765	-0.0020	0.3600	-0.0053	0.3309	-0.0130
2.33	1.53	0.4001	-0.0033	0.3764	-0.0021	0.3599	-0.0054	0.3309	-0.0130
2.50	1.58	0.4000	-0.0034	0.3763	-0.0022	0.3596	-0.0057	0.3309	-0.0130
2.67	1.63	0.3997	-0.0037	0.3762	-0.0023	0.3594	-0.0059	0.3309	-0.0130
2.83	1.68	0.3996	-0.0038	0.3761	-0.0024	0.3592	-0.0061	0.3291	-0.0148
3.00	1.73	0.3993	-0.0041	0.3759	-0.0026	0.3590	-0.0063	0.3284	-0.0155
3.17	1.78	0.3993	-0.0041	0.3758	-0.0027	0.3588	-0.0065	0.3278	-0.0161
3.33	1.83	0.3991	-0.0043	0.3757	-0.0028	0.3585	-0.0068	0.3274	-0.0165
3.50	1.87	0.3989	-0.0045	0.3757	-0.0028	0.3583	-0.0070	0.3270	-0.0169
3.67	1.91	0.3987	-0.0047	0.3755	-0.0030	0.3582	-0.0071	0.3270	-0.0169
3.83	1.96	0.3985	-0.0049	0.3755	-0.0030	0.3579	-0.0074	0.3262	-0.0177
4.00	2.00	0.3984	-0.0050	0.3753	-0.0032	0.3577	-0.0076	0.3259	-0.0180
4.17	2.04	0.3982	-0.0052	0.3752	-0.0033	0.3576	-0.0077	0.3254	-0.0185
4.33	2.08	0.3980	-0.0054	0.3750	-0.0035	0.3574	-0.0079	0.3247	-0.0192
4.50	2.12	0.3979	-0.0055	0.3749	-0.0036	0.3571	-0.0082	0.3244	-0.0195
4.67	2.16	0.3978	-0.0056	0.3749	-0.0036	0.3569	-0.0084	0.3238	-0.0201
4.83	2.20	0.3976	-0.0058	0.3748	-0.0037	0.3567	-0.0086	0.3235	-0.0204
5.00	2.24	0.3975	-0.0059	0.3747	-0.0038	0.3566	-0.0087	0.3230	-0.0209
5.17	2.27	0.3973	-0.0061	0.3746	-0.0039	0.3563	-0.0090	0.3227	-0.0212
5.33	2.31	0.3971	-0.0063	0.3745	-0.0040	0.3562	-0.0091	0.3222	-0.0217
5.50	2.35	0.3970	-0.0064	0.3744	-0.0041	0.3561	-0.0092	0.3218	-0.0221
5.67	2.38	0.3969	-0.0065	0.3743	-0.0042	0.3559	-0.0094	0.3214	-0.0225
5.83	2.42	0.3968	-0.0066	0.3742	-0.0043	0.3557	-0.0096	0.3211	-0.0228
6.00	2.45	0.3966	-0.0068	0.3742	-0.0043	0.3555	-0.0098	0.3207	-0.0232
6.17	2.48	0.3965	-0.0069	0.3741	-0.0044	0.3553	-0.0100	0.3203	-0.0236
6.33	2.52	0.3963	-0.0071	0.3740	-0.0045	0.3553	-0.0100	0.3199	-0.0240
6.50	2.55	0.3962	-0.0072	0.3739	-0.0046	0.3550	-0.0103	0.3197	-0.0242
6.67	2.58	0.3961	-0.0073	0.3737	-0.0048	0.3549	-0.0104	0.3192	-0.0247
6.83	2.61	0.3960	-0.0074	0.3737	-0.0048	0.3547	-0.0106	0.3190	-0.0249
7.00	2.65	0.3958	-0.0076	0.3736	-0.0049	0.3546	-0.0107	0.3186	-0.0253
7.17	2.68	0.3957	-0.0077	0.3735	-0.0050	0.3545	-0.0108	0.3183	-0.0256
7.33	2.71	0.3955	-0.0079	0.3734	-0.0051	0.3544	-0.0109	0.3180	-0.0259
7.50	2.74	0.3954	-0.0080	0.3734	-0.0051	0.3542	-0.0111	0.3178	-0.0261
7.67	2.77	0.3953	-0.0081	0.3733	-0.0052	0.3540	-0.0113	0.3175	-0.0264
7.83	2.80	0.3952	-0.0082	0.3732	-0.0053	0.3539	-0.0114	0.3173	-0.0266
8.00	2.83	0.3950	-0.0084	0.3731	-0.0054	0.3538	-0.0115	0.3169	-0.0270
8.17	2.86	0.3949	-0.0085	0.3731	-0.0054	0.3537	-0.0116	0.3167	-0.0272
8.33	2.89	0.3947	-0.0087	0.3729	-0.0056	0.3536	-0.0117	0.3164	-0.0275
8.50	2.92	0.3946	-0.0088	0.3729	-0.0056	0.3534	-0.0119	0.3163	-0.0276
8.67	2.94	0.3945	-0.0089	0.3728	-0.0057	0.3533	-0.0120	0.3160	-0.0279
8.83	2.97	0.3944	-0.0090	0.3727	-0.0058	0.3532	-0.0121	0.3158	-0.0281
9.00	3.00	0.3942	-0.0092	0.3726	-0.0059	0.3530	-0.0123	0.3155	-0.0284
9.17	3.03	0.3941	-0.0093	0.3726	-0.0059	0.3529	-0.0124	0.3153	-0.0286
9.33	3.06	0.3939	-0.0095	0.3726	-0.0059	0.3529	-0.0124	0.3152	-0.0287
9.50	3.08	0.3938	-0.0096	0.3725	-0.0060	0.3528	-0.0125	0.3150	-0.0289
9.67	3.11	0.3937	-0.0097	0.3724	-0.0061	0.3527	-0.0126	0.3147	-0.0292
9.83	3.14	0.3936	-0.0098	0.3723	-0.0062	0.3525	-0.0128	0.3146	-0.0293
10.00	3.16	0.3934	-0.0100	0.3722	-0.0063	0.3524	-0.0129	0.3144	-0.0295
10.17	3.19	0.3933	-0.0101	0.3722	-0.0063	0.3523	-0.0130	0.3143	-0.0296
10.33	3.21	0.3932	-0.0102	0.3721	-0.0064	0.3522	-0.0131	0.3141	-0.0298
10.50	3.24	0.3930	-0.0104	0.3720	-0.0065	0.3521	-0.0132	0.3139	-0.0300
10.67	3.27	0.3930	-0.0104	0.3719	-0.0066	0.3521	-0.0132	0.3136	-0.0303

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.3928	-0.0106	0.3718	-0.0067	0.3520	-0.0133	0.3136	-0.0303
11.00	3.32	0.3927	-0.0107	0.3718	-0.0067	0.3519	-0.0134	0.3134	-0.0305
11.17	3.34	0.3926	-0.0108	0.3718	-0.0067	0.3518	-0.0135	0.3132	-0.0307
11.33	3.37	0.3924	-0.0110	0.3717	-0.0068	0.3517	-0.0136	0.3130	-0.0309
11.50	3.39	0.3923	-0.0111	0.3717	-0.0068	0.3516	-0.0137	0.3129	-0.0310
11.67	3.42	0.3923	-0.0111	0.3716	-0.0069	0.3516	-0.0137	0.3128	-0.0311
11.83	3.44	0.3921	-0.0113	0.3715	-0.0070	0.3514	-0.0139	0.3127	-0.0312
12.00	3.46	0.3919	-0.0115	0.3715	-0.0070	0.3514	-0.0139	0.3125	-0.0314
12.17	3.49	0.3919	-0.0115	0.3714	-0.0071	0.3514	-0.0139	0.3124	-0.0315
12.33	3.51	0.3917	-0.0117	0.3713	-0.0072	0.3513	-0.0140	0.3122	-0.0317
12.50	3.54	0.3916	-0.0118	0.3712	-0.0073	0.3512	-0.0141	0.3121	-0.0318
12.67	3.56	0.3915	-0.0119	0.3712	-0.0073	0.3511	-0.0142	0.3120	-0.0319
12.83	3.58	0.3915	-0.0119	0.3711	-0.0074	0.3510	-0.0143	0.3120	-0.0319
13.00	3.61	0.3913	-0.0121	0.3711	-0.0074	0.3509	-0.0144	0.3118	-0.0321
13.17	3.63	0.3912	-0.0122	0.3710	-0.0075	0.3508	-0.0145	0.3117	-0.0322
13.33	3.65	0.3911	-0.0123	0.3710	-0.0075	0.3508	-0.0145	0.3116	-0.0323
13.50	3.67	0.3910	-0.0124	0.3710	-0.0075	0.3507	-0.0146	0.3115	-0.0324
13.67	3.70	0.3910	-0.0124	0.3710	-0.0075	0.3507	-0.0146	0.3113	-0.0326
13.83	3.72	0.3908	-0.0126	0.3709	-0.0076	0.3506	-0.0147	0.3112	-0.0327
14.00	3.74	0.3907	-0.0127	0.3709	-0.0076	0.3506	-0.0147	0.3112	-0.0327
14.17	3.76	0.3907	-0.0127	0.3708	-0.0077	0.3505	-0.0148	0.3111	-0.0328
14.33	3.79	0.3906	-0.0128	0.3707	-0.0078	0.3505	-0.0148	0.3110	-0.0329
14.50	3.81	0.3905	-0.0129	0.3707	-0.0078	0.3504	-0.0149	0.3109	-0.0330
14.67	3.83	0.3903	-0.0131	0.3707	-0.0078	0.3503	-0.0150	0.3108	-0.0331
14.83	3.85	0.3902	-0.0132	0.3706	-0.0079	0.3502	-0.0151	0.3107	-0.0332
15.33	3.92	0.3899	-0.0135	0.3705	-0.0080	0.3501	-0.0152	0.3105	-0.0334
15.83	3.98	0.3897	-0.0137	0.3703	-0.0082	0.3499	-0.0154	0.3102	-0.0337
16.33	4.04	0.3893	-0.0141	0.3702	-0.0083	0.3498	-0.0155	0.3100	-0.0339
16.83	4.10	0.3891	-0.0143	0.3702	-0.0083	0.3497	-0.0156	0.3098	-0.0341
17.33	4.16	0.3888	-0.0146	0.3701	-0.0084	0.3496	-0.0157	0.3097	-0.0342
17.83	4.22	0.3885	-0.0149	0.3700	-0.0085	0.3494	-0.0159	0.3095	-0.0344
18.33	4.28	0.3883	-0.0151	0.3699	-0.0086	0.3493	-0.0160	0.3093	-0.0346
18.83	4.34	0.3880	-0.0154	0.3698	-0.0087	0.3492	-0.0161	0.3091	-0.0348
19.33	4.40	0.3877	-0.0157	0.3697	-0.0088	0.3491	-0.0162	0.3090	-0.0349
19.83	4.45	0.3875	-0.0159	0.3695	-0.0090	0.3490	-0.0163	0.3089	-0.0350
20.33	4.51	0.3873	-0.0161	0.3695	-0.0090	0.3490	-0.0163	0.3088	-0.0351
20.83	4.56	0.3870	-0.0164	0.3694	-0.0091	0.3489	-0.0164	0.3086	-0.0353
21.33	4.62	0.3868	-0.0166	0.3694	-0.0091	0.3488	-0.0165	0.3085	-0.0354
21.83	4.67	0.3867	-0.0167	0.3693	-0.0092	0.3486	-0.0167	0.3083	-0.0356
22.33	4.73	0.3864	-0.0170	0.3692	-0.0093	0.3485	-0.0168	0.3082	-0.0357
22.83	4.78	0.3862	-0.0172	0.3692	-0.0093	0.3484	-0.0169	0.3081	-0.0358
23.33	4.83	0.3860	-0.0174	0.3690	-0.0095	0.3482	-0.0171	0.3081	-0.0358
23.83	4.88	0.3858	-0.0176	0.3690	-0.0095	0.3482	-0.0171	0.3080	-0.0359
24.33	4.93	0.3856	-0.0178	0.3689	-0.0096	0.3481	-0.0172	0.3079	-0.0360
24.83	4.98	0.3855	-0.0179	0.3689	-0.0096	0.3480	-0.0173	0.3078	-0.0361
25.33	5.03	0.3853	-0.0181	0.3688	-0.0097	0.3480	-0.0173	0.3077	-0.0362
25.83	5.08	0.3851	-0.0183	0.3687	-0.0098	0.3479	-0.0174	0.3076	-0.0363
26.33	5.13	0.3849	-0.0185	0.3687	-0.0098	0.3479	-0.0174	0.3075	-0.0364
26.83	5.18	0.3847	-0.0187	0.3687	-0.0098	0.3478	-0.0175	0.3075	-0.0364
27.33	5.23	0.3845	-0.0189	0.3687	-0.0098	0.3477	-0.0176	0.3074	-0.0365
27.83	5.28	0.3844	-0.0190	0.3686	-0.0099	0.3477	-0.0176	0.3074	-0.0365
28.33	5.32	0.3843	-0.0191	0.3686	-0.0099	0.3476	-0.0177	0.3073	-0.0366
28.83	5.37	0.3841	-0.0193	0.3685	-0.0100	0.3476	-0.0177	0.3072	-0.0367
29.33	5.42	0.3839	-0.0195	0.3684	-0.0101	0.3475	-0.0178	0.3072	-0.0367
29.83	5.46	0.3838	-0.0196	0.3684	-0.0101	0.3475	-0.0178	0.3071	-0.0368
30.33	5.51	0.3836	-0.0198	0.3683	-0.0102	0.3474	-0.0179	0.3070	-0.0369
30.83	5.55	0.3835	-0.0199	0.3683	-0.0102	0.3474	-0.0179	0.3070	-0.0369
31.33	5.60	0.3833	-0.0201	0.3683	-0.0102	0.3474	-0.0179	0.3069	-0.0370
31.83	5.64	0.3831	-0.0203	0.3683	-0.0102	0.3474	-0.0179	0.3069	-0.0370
32.33	5.69	0.3830	-0.0204	0.3682	-0.0103	0.3473	-0.0180	0.3068	-0.0371
32.83	5.73	0.3829	-0.0205	0.3681	-0.0104	0.3473	-0.0180	0.3068	-0.0371
33.33	5.77	0.3828	-0.0206	0.3681	-0.0104	0.3473	-0.0180	0.3067	-0.0372
33.83	5.82	0.3827	-0.0207	0.3681	-0.0104	0.3472	-0.0181	0.3067	-0.0372
34.33	5.86	0.3826	-0.0208	0.3680	-0.0105	0.3471	-0.0182	0.3067	-0.0372
34.83	5.90	0.3825	-0.0209	0.3680	-0.0105	0.3471	-0.0182	0.3066	-0.0373

Sample: Pond 12S, BH-2 @ 16.5 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3823	-0.0211	0.3679	-0.0106	0.3471	-0.0182	0.3065	-0.0374
35.83	5.99	0.3822	-0.0212	0.3679	-0.0106	0.3470	-0.0183	0.3065	-0.0374
36.33	6.03	0.3821	-0.0213	0.3679	-0.0106	0.3470	-0.0183	0.3065	-0.0374
36.83	6.07	0.3820	-0.0214	0.3679	-0.0106	0.3469	-0.0184	0.3065	-0.0374
37.33	6.11	0.3820	-0.0214	0.3679	-0.0106	0.3469	-0.0184	0.3064	-0.0375
37.83	6.15	0.3820	-0.0214	0.3678	-0.0107	0.3469	-0.0184	0.3064	-0.0375
38.33	6.19	0.3819	-0.0215	0.3678	-0.0107	0.3469	-0.0184	0.3064	-0.0375
38.83	6.23	0.3819	-0.0215	0.3678	-0.0107	0.3468	-0.0185	0.3063	-0.0376
39.33	6.27	0.3817	-0.0217	0.3677	-0.0108	0.3468	-0.0185	0.3063	-0.0376
39.83	6.31	0.3816	-0.0218	0.3677	-0.0108	0.3468	-0.0185	0.3062	-0.0377
40.33	6.35	0.3815	-0.0219	0.3677	-0.0108	0.3468	-0.0185	0.3062	-0.0377
40.83	6.39	0.3815	-0.0219	0.3676	-0.0109	0.3467	-0.0186	0.3062	-0.0377
41.33	6.43	0.3813	-0.0221	0.3676	-0.0109	0.3467	-0.0186	0.3061	-0.0378
41.83	6.47	0.3812	-0.0222	0.3675	-0.0110	0.3467	-0.0186	0.3061	-0.0378
42.33	6.51	0.3812	-0.0222	0.3675	-0.0110	0.3467	-0.0186	0.3061	-0.0378
42.83	6.54	0.3812	-0.0222	0.3675	-0.0110	0.3466	-0.0187	0.3061	-0.0378
43.33	6.58	0.3811	-0.0223	0.3675	-0.0110	0.3466	-0.0187	0.3060	-0.0379
43.83	6.62	0.3810	-0.0224	0.3675	-0.0110	0.3466	-0.0187	0.3060	-0.0379
44.33	6.66	0.3809	-0.0225	0.3674	-0.0111	0.3466	-0.0187	0.3060	-0.0379
44.83	6.70	0.3808	-0.0226	0.3674	-0.0111	0.3466	-0.0187	0.3059	-0.0380
45.33	6.73	0.3808	-0.0226	0.3673	-0.0112	0.3466	-0.0187	0.3059	-0.0380
45.83	6.77	0.3807	-0.0227	0.3672	-0.0113	0.3466	-0.0187	0.3059	-0.0380
46.33	6.81	0.3807	-0.0227	0.3671	-0.0114	0.3466	-0.0187	0.3059	-0.0380
46.83	6.84	0.3806	-0.0228	0.3671	-0.0114	0.3466	-0.0187	0.3058	-0.0381
47.33	6.88	0.3806	-0.0228	0.3671	-0.0114	0.3465	-0.0188	0.3058	-0.0381
47.83	6.92	0.3805	-0.0229	0.3671	-0.0114	0.3465	-0.0188	0.3058	-0.0381
48.33	6.95	0.3805	-0.0229	0.3671	-0.0114	0.3465	-0.0188	0.3057	-0.0382
48.83	6.99	0.3805	-0.0229	0.3671	-0.0114	0.3465	-0.0188	0.3057	-0.0382
49.33	7.02	0.3804	-0.0230	0.3671	-0.0114	0.3464	-0.0189	0.3057	-0.0382
49.83	7.06	0.3804	-0.0230	0.3670	-0.0115	0.3464	-0.0189	0.3057	-0.0382
50.33	7.09	0.3803	-0.0231	0.3670	-0.0115	0.3464	-0.0189	0.3057	-0.0382
50.83	7.13	0.3802	-0.0232	0.3669	-0.0116	0.3464	-0.0189	0.3057	-0.0382
51.33	7.16	0.3801	-0.0233	0.3669	-0.0116	0.3464	-0.0189	0.3057	-0.0382
51.83	7.20	0.3801	-0.0233	0.3669	-0.0116	0.3464	-0.0189	0.3057	-0.0382
52.33	7.23	0.3801	-0.0233	0.3668	-0.0117	0.3463	-0.0190	0.3057	-0.0382
52.83	7.27	0.3800	-0.0234	0.3668	-0.0117	0.3463	-0.0190	0.3056	-0.0383
53.33	7.30	0.3800	-0.0234	0.3668	-0.0117	0.3463	-0.0190	0.3056	-0.0383
53.83	7.34	0.3800	-0.0234	0.3668	-0.0117	0.3463	-0.0190	0.3056	-0.0383
54.33	7.37	0.3800	-0.0234	0.3668	-0.0117	0.3462	-0.0191	0.3056	-0.0383
54.83	7.40	0.3799	-0.0235	0.3667	-0.0118	0.3462	-0.0191	0.3055	-0.0384
55.33	7.44	0.3799	-0.0235	0.3667	-0.0118	0.3462	-0.0191	0.3055	-0.0384
55.83	7.47	0.3798	-0.0236	0.3666	-0.0119	0.3462	-0.0191	0.3055	-0.0384
56.33	7.51	0.3798	-0.0236	0.3666	-0.0119	0.3462	-0.0191	0.3055	-0.0384
56.83	7.54	0.3797	-0.0237	0.3665	-0.0120	0.3462	-0.0191	0.3055	-0.0384
57.33	7.57	0.3797	-0.0237	0.3665	-0.0120	0.3462	-0.0191	0.3054	-0.0385
57.83	7.60	0.3797	-0.0237	0.3664	-0.0121	0.3461	-0.0192	0.3054	-0.0385
58.33	7.64	0.3797	-0.0237	0.3664	-0.0121	0.3461	-0.0192	0.3054	-0.0385
58.83	7.67	0.3797	-0.0237	0.3664	-0.0121	0.3461	-0.0192	0.3054	-0.0385
59.33	7.70	0.3797	-0.0237	0.3664	-0.0121	0.3461	-0.0192	0.3054	-0.0385
59.83	7.74	0.3797	-0.0237	0.3664	-0.0121	0.3461	-0.0192	0.3053	-0.0386
60.83	7.80	0.3796	-0.0238	0.3663	-0.0122	0.3460	-0.0193	0.3053	-0.0386
61.83	7.86	0.3796	-0.0238	0.3664	-0.0121	0.3460	-0.0193	0.3053	-0.0386
62.83	7.93	0.3795	-0.0239	0.3663	-0.0122	0.3460	-0.0193	0.3052	-0.0387
63.83	7.99	0.3795	-0.0239	0.3663	-0.0122	0.3460	-0.0193	0.3052	-0.0387
64.83	8.05	0.3794	-0.0240	0.3665	-0.0120	0.3459	-0.0194	0.3052	-0.0387
65.83	8.11	0.3794	-0.0240	0.3665	-0.0120	0.3460	-0.0193	0.3051	-0.0388
66.83	8.18	0.3793	-0.0241	0.3664	-0.0121	0.3459	-0.0194	0.3051	-0.0388
67.83	8.24	0.3793	-0.0241	0.3664	-0.0121	0.3459	-0.0194	0.3050	-0.0389
68.83	8.30	0.3792	-0.0242	0.3664	-0.0121	0.3459	-0.0194	0.3050	-0.0389
69.83	8.36	0.3792	-0.0242	0.3664	-0.0121	0.3458	-0.0195	0.3049	-0.0390
70.83	8.42	0.3792	-0.0242	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
71.83	8.48	0.3791	-0.0243	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
72.83	8.53	0.3791	-0.0243	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
73.83	8.59	0.3791	-0.0243	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
74.83	8.65	0.3790	-0.0244	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390

Sample: Pond 12S, BH-2 @ 16.5 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.3790	-0.0244	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
76.83	8.77	0.3789	-0.0245	0.3663	-0.0122	0.3458	-0.0195	0.3049	-0.0390
77.83	8.82	0.3789	-0.0245	0.3663	-0.0122	0.3458	-0.0195	0.3048	-0.0391
78.83	8.88	0.3789	-0.0245	0.3661	-0.0124	0.3458	-0.0195	0.3048	-0.0391
79.83	8.93	0.3789	-0.0245	0.3661	-0.0124	0.3458	-0.0195	0.3048	-0.0391
80.83	8.99	0.3789	-0.0245	0.3661	-0.0124	0.3457	-0.0196	0.3048	-0.0391
81.83	9.05	0.3789	-0.0245	0.3661	-0.0124	0.3456	-0.0197	0.3048	-0.0391
82.83	9.10	0.3789	-0.0245	0.3660	-0.0125	0.3456	-0.0197	0.3047	-0.0392
83.83	9.16	0.3789	-0.0245	0.3661	-0.0124	0.3456	-0.0197	0.3047	-0.0392
84.83	9.21	0.3789	-0.0245	0.3661	-0.0124	0.3456	-0.0197	0.3047	-0.0392
85.83	9.26	0.3789	-0.0245	0.3660	-0.0125	0.3456	-0.0197	0.3047	-0.0392
86.83	9.32	0.3789	-0.0245	0.3658	-0.0127	0.3456	-0.0197	0.3047	-0.0392
87.83	9.37	0.3789	-0.0245	0.3658	-0.0127	0.3456	-0.0197	0.3046	-0.0393
88.83	9.43	0.3789	-0.0245	0.3659	-0.0126	0.3456	-0.0197	0.3046	-0.0393
89.83	9.48	0.3789	-0.0245	0.3659	-0.0126	0.3456	-0.0197	0.3046	-0.0393
90.83	9.53	0.3789	-0.0245	0.3659	-0.0126	0.3456	-0.0197	0.3046	-0.0393
91.83	9.58	0.3789	-0.0245	0.3659	-0.0126	0.3456	-0.0197	0.3043	-0.0396
92.83	9.64	0.3789	-0.0245	0.3659	-0.0126	0.3455	-0.0198	0.3044	-0.0395
93.83	9.69	0.3789	-0.0245	0.3659	-0.0126	0.3455	-0.0198	0.3043	-0.0396
94.83	9.74	0.3789	-0.0245	0.3659	-0.0126	0.3455	-0.0198	0.3042	-0.0397
95.83	9.79	0.3789	-0.0245	0.3659	-0.0126	0.3455	-0.0198	0.3042	-0.0397
96.83	9.84	0.3789	-0.0245	0.3658	-0.0127	0.3455	-0.0198	0.3042	-0.0397
97.83	9.89	0.3789	-0.0245	0.3658	-0.0127	0.3455	-0.0198	0.3042	-0.0397
98.83	9.94	0.3788	-0.0246	0.3658	-0.0127	0.3455	-0.0198	0.3042	-0.0397
99.83	9.99	0.3788	-0.0246	0.3658	-0.0127	0.3455	-0.0198	0.3042	-0.0397
100.83	10.04	0.3788	-0.0246	0.3658	-0.0127	0.3454	-0.0199	0.3042	-0.0397
101.83	10.09	0.3788	-0.0246	0.3658	-0.0127	0.3454	-0.0199	0.3042	-0.0397
102.83	10.14	0.3788	-0.0246	0.3657	-0.0128	0.3454	-0.0199	0.3042	-0.0397
103.83	10.19	0.3787	-0.0247	0.3657	-0.0128	0.3454	-0.0199	0.3042	-0.0397
104.83	10.24	0.3787	-0.0247	0.3657	-0.0128	0.3454	-0.0199	0.3042	-0.0397
105.83	10.29	0.3787	-0.0247	0.3657	-0.0128	0.3454	-0.0199	0.3042	-0.0397
106.83	10.34	0.3787	-0.0247	0.3656	-0.0129	0.3454	-0.0199	0.3042	-0.0397
107.83	10.38	0.3787	-0.0247	0.3656	-0.0129	0.3454	-0.0199	0.3042	-0.0397
108.83	10.43	0.3787	-0.0247	0.3656	-0.0129	0.3454	-0.0199	0.3042	-0.0397
109.83	10.48	0.3787	-0.0247	0.3656	-0.0129	0.3453	-0.0200	0.3042	-0.0397
110.83	10.53	0.3786	-0.0248	0.3656	-0.0129	0.3453	-0.0200	0.3042	-0.0397
111.83	10.58	0.3787	-0.0247	0.3656	-0.0129	0.3453	-0.0200	0.3041	-0.0398
112.83	10.62	0.3786	-0.0248	0.3656	-0.0129	0.3453	-0.0200	0.3041	-0.0398
113.83	10.67	0.3786	-0.0248	0.3655	-0.0130	0.3453	-0.0200	0.3041	-0.0398
114.83	10.72	0.3786	-0.0248	0.3655	-0.0130	0.3453	-0.0200	0.3041	-0.0398
115.83	10.76	0.3786	-0.0248	0.3655	-0.0130	0.3452	-0.0201	0.3040	-0.0399
116.83	10.81	0.3786	-0.0248	0.3655	-0.0130	0.3453	-0.0200	0.3040	-0.0399
117.83	10.86	0.3786	-0.0248	0.3655	-0.0130	0.3452	-0.0201	0.3040	-0.0399
118.83	10.90	0.3786	-0.0248	0.3655	-0.0130	0.3452	-0.0201	0.3038	-0.0401
119.83	10.95	0.3786	-0.0248	0.3655	-0.0130	0.3452	-0.0201	0.3038	-0.0401
129.83	11.39	0.3786	-0.0248	0.3655	-0.0130	0.3451	-0.0202	0.3036	-0.0403
139.83	11.83	0.3786	-0.0248			0.3451	-0.0202	0.3035	-0.0404
149.83	12.24	0.3786	-0.0248			0.3451	-0.0202	0.3032	-0.0407
159.83	12.64	0.3785	-0.0249			0.3451	-0.0202	0.3032	-0.0407
169.83	13.03					0.3451	-0.0202	0.3032	-0.0407
179.83	13.41					0.3450	-0.0203	0.3032	-0.0407
189.83	13.78					0.3449	-0.0204	0.3031	-0.0408
199.83	14.14					0.3448	-0.0205	0.3030	-0.0409
209.83	14.49					0.3448	-0.0205	0.3029	-0.0410
219.83	14.83					0.3448	-0.0205	0.3026	-0.0413
229.83	15.16					0.3447	-0.0206	0.3026	-0.0413
239.83	15.49					0.3446	-0.0207	0.3026	-0.0413
249.83	15.81					0.3446	-0.0207	0.3025	-0.0414
259.83	16.12					0.3446	-0.0207	0.3025	-0.0414
269.83	16.43					0.3446	-0.0207	0.3025	-0.0414
279.83	16.73					0.3446	-0.0207	0.3025	-0.0414
289.83	17.02					0.3446	-0.0207	0.3024	-0.0415
299.83	17.32					0.3446	-0.0207	0.3024	-0.0415
309.83	17.60					0.3446	-0.0207	0.3023	-0.0416
319.83	17.88					0.3444	-0.0209	0.3023	-0.0416

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.3444	-0.0209		
339.83	18.43					0.3444	-0.0209		
349.83	18.70					0.3444	-0.0209		
359.83	18.97					0.3444	-0.0209		
369.83	19.23					0.3444	-0.0209		
379.83	19.49					0.3444	-0.0209		
389.83	19.74					0.3444	-0.0209		
399.83	20.00					0.3443	-0.0210		
409.83	20.24					0.3443	-0.0210		
419.83	20.49					0.3443	-0.0210		
429.83	20.73					0.3443	-0.0210		
439.83	20.97					0.3443	-0.0210		
449.83	21.21					0.3443	-0.0210		
459.83	21.44					0.3443	-0.0210		
469.83	21.68					0.3442	-0.0211		
479.83	21.91					0.3442	-0.0211		
489.83	22.13					0.3443	-0.0210		
499.83	22.36					0.3443	-0.0210		
509.83	22.58					0.3442	-0.0211		
519.83	22.80					0.3443	-0.0210		
529.83	23.02					0.3442	-0.0211		
539.83	23.23					0.3442	-0.0211		
549.83	23.45					0.3443	-0.0210		
559.83	23.66					0.3443	-0.0210		
569.83	23.87					0.3442	-0.0211		
579.83	24.08					0.3442	-0.0211		
589.83	24.29					0.3442	-0.0211		
599.83	24.49					0.3442	-0.0211		
609.83	24.69					0.3441	-0.0212		
619.83	24.90					0.3441	-0.0212		
629.83	25.10					0.3442	-0.0211		
639.83	25.29					0.3442	-0.0211		
649.83	25.49					0.3441	-0.0212		
659.83	25.69					0.3441	-0.0212		
669.83	25.88					0.3441	-0.0212		
679.83	26.07					0.3441	-0.0212		
689.83	26.26					0.3441	-0.0212		
699.83	26.45					0.3441	-0.0212		
709.83	26.64					0.3441	-0.0212		
719.83	26.83					0.3441	-0.0212		
749.83	27.38					0.3440	-0.0213		
779.83	27.93					0.3440	-0.0213		
809.83	28.46					0.3439	-0.0214		
839.83	28.98					0.3439	-0.0214		
869.83	29.49					0.3439	-0.0214		
899.83	30.00					0.3439	-0.0214		

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.3019	0.0000	0.2466	0.0000	0.1736	0.0000	0.4135	0.0000
0.17	0.41	0.2987	-0.0032	0.2466	0.0000	0.1722	-0.0014	0.4135	0.0000
0.33	0.58	0.2950	-0.0069	0.2355	-0.0111	0.1575	-0.0161	0.4136	0.0001
0.50	0.71	0.2932	-0.0087	0.2320	-0.0146	0.1496	-0.0240	0.4135	0.0000
0.67	0.82	0.2917	-0.0102	0.2292	-0.0174	0.1476	-0.0260	0.4135	0.0000
0.83	0.91	0.2903	-0.0116	0.2262	-0.0204	0.1409	-0.0327	0.4135	0.0000
1.00	1.00	0.2903	-0.0116	0.2241	-0.0225	0.1380	-0.0356	0.3986	-0.0149
1.17	1.08	0.2873	-0.0146	0.2211	-0.0255	0.1352	-0.0384	0.3943	-0.0192
1.33	1.15	0.2858	-0.0161	0.2211	-0.0255	0.1352	-0.0384	0.3898	-0.0237
1.50	1.22	0.2845	-0.0174	0.2211	-0.0255	0.1352	-0.0384	0.3873	-0.0262
1.67	1.29	0.2837	-0.0182	0.2161	-0.0305	0.1352	-0.0384	0.3843	-0.0292
1.83	1.35	0.2822	-0.0197	0.2148	-0.0318	0.1352	-0.0384	0.3825	-0.0310
2.00	1.41	0.2815	-0.0204	0.2129	-0.0337	0.1227	-0.0509	0.3810	-0.0325
2.17	1.47	0.2803	-0.0216	0.2117	-0.0349	0.1215	-0.0521	0.3790	-0.0345
2.33	1.53	0.2796	-0.0223	0.2102	-0.0364	0.1196	-0.0540	0.3783	-0.0352
2.50	1.58	0.2796	-0.0223	0.2090	-0.0376	0.1185	-0.0551	0.3769	-0.0366
2.67	1.63	0.2796	-0.0223	0.2080	-0.0386	0.1170	-0.0566	0.3763	-0.0372
2.83	1.68	0.2771	-0.0248	0.2066	-0.0400	0.1160	-0.0576	0.3757	-0.0378
3.00	1.73	0.2767	-0.0252	0.2066	-0.0400	0.1151	-0.0585	0.3744	-0.0391
3.17	1.78	0.2757	-0.0262	0.2066	-0.0400	0.1138	-0.0598	0.3733	-0.0402
3.33	1.83	0.2751	-0.0268	0.2037	-0.0429	0.1132	-0.0604	0.3727	-0.0408
3.50	1.87	0.2745	-0.0274	0.2029	-0.0437	0.1122	-0.0614	0.3718	-0.0417
3.67	1.91	0.2740	-0.0279	0.2027	-0.0439	0.1116	-0.0620	0.3713	-0.0422
3.83	1.96	0.2736	-0.0283	0.2016	-0.0450	0.1108	-0.0628	0.3708	-0.0427
4.00	2.00	0.2727	-0.0292	0.2009	-0.0457	0.1103	-0.0633	0.3703	-0.0432
4.17	2.04	0.2720	-0.0299	0.2000	-0.0466	0.1096	-0.0640	0.3698	-0.0437
4.33	2.08	0.2713	-0.0306	0.1997	-0.0469	0.1096	-0.0640	0.3695	-0.0440
4.50	2.12	0.2709	-0.0310	0.1988	-0.0478	0.1096	-0.0640	0.3691	-0.0444
4.67	2.16	0.2703	-0.0316	0.1982	-0.0484	0.1096	-0.0640	0.3687	-0.0448
4.83	2.20	0.2698	-0.0321	0.1976	-0.0490	0.1096	-0.0640	0.3684	-0.0451
5.00	2.24	0.2692	-0.0327	0.1972	-0.0494	0.1075	-0.0661	0.3682	-0.0453
5.17	2.27	0.2688	-0.0331	0.1964	-0.0502	0.1071	-0.0665	0.3678	-0.0457
5.33	2.31	0.2682	-0.0337	0.1959	-0.0507	0.1067	-0.0669	0.3676	-0.0459
5.50	2.35	0.2678	-0.0341	0.1953	-0.0513	0.1064	-0.0672	0.3672	-0.0463
5.67	2.38	0.2672	-0.0347	0.1949	-0.0517	0.1060	-0.0676	0.3671	-0.0464
5.83	2.42	0.2669	-0.0350	0.1944	-0.0522	0.1058	-0.0678	0.3668	-0.0467
6.00	2.45	0.2664	-0.0355	0.1940	-0.0526	0.1055	-0.0681	0.3666	-0.0469
6.17	2.48	0.2662	-0.0357	0.1935	-0.0531	0.1052	-0.0684	0.3663	-0.0472
6.33	2.52	0.2657	-0.0362	0.1932	-0.0534	0.1050	-0.0686	0.3661	-0.0474
6.50	2.55	0.2655	-0.0364	0.1928	-0.0538	0.1047	-0.0689	0.3658	-0.0477
6.67	2.58	0.2651	-0.0368	0.1925	-0.0541	0.1045	-0.0691	0.3656	-0.0479
6.83	2.61	0.2648	-0.0371	0.1921	-0.0545	0.1043	-0.0693	0.3655	-0.0480
7.00	2.65	0.2645	-0.0374	0.1918	-0.0548	0.1041	-0.0695	0.3654	-0.0481
7.17	2.68	0.2642	-0.0377	0.1915	-0.0551	0.1039	-0.0697	0.3651	-0.0484
7.33	2.71	0.2639	-0.0380	0.1913	-0.0553	0.1039	-0.0697	0.3650	-0.0485
7.50	2.74	0.2636	-0.0383	0.1909	-0.0557	0.1039	-0.0697	0.3648	-0.0487
7.67	2.77	0.2633	-0.0386	0.1908	-0.0558	0.1039	-0.0697	0.3647	-0.0488
7.83	2.80	0.2632	-0.0387	0.1904	-0.0562	0.1039	-0.0697	0.3646	-0.0489
8.00	2.83	0.2628	-0.0391	0.1903	-0.0563	0.1031	-0.0705	0.3645	-0.0490
8.17	2.86	0.2627	-0.0392	0.1900	-0.0566	0.1028	-0.0708	0.3643	-0.0492
8.33	2.89	0.2624	-0.0395	0.1898	-0.0568	0.1027	-0.0709	0.3642	-0.0493
8.50	2.92	0.2623	-0.0396	0.1896	-0.0570	0.1026	-0.0710	0.3640	-0.0495
8.67	2.94	0.2620	-0.0399	0.1893	-0.0573	0.1024	-0.0712	0.3639	-0.0496
8.83	2.97	0.2618	-0.0401	0.1892	-0.0574	0.1022	-0.0714	0.3639	-0.0496
9.00	3.00	0.2616	-0.0403	0.1890	-0.0576	0.1021	-0.0715	0.3638	-0.0497
9.17	3.03	0.2614	-0.0405	0.1888	-0.0578	0.1020	-0.0716	0.3637	-0.0498
9.33	3.06	0.2612	-0.0407	0.1886	-0.0580	0.1020	-0.0716	0.3636	-0.0499
9.50	3.08	0.2611	-0.0408	0.1885	-0.0581	0.1019	-0.0717	0.3634	-0.0501
9.67	3.11	0.2609	-0.0410	0.1884	-0.0582	0.1018	-0.0718	0.3633	-0.0502
9.83	3.14	0.2608	-0.0411	0.1881	-0.0585	0.1018	-0.0718	0.3632	-0.0503
10.00	3.16	0.2606	-0.0413	0.1880	-0.0586	0.1015	-0.0721	0.3632	-0.0503
10.17	3.19	0.2604	-0.0415	0.1878	-0.0588	0.1014	-0.0722	0.3631	-0.0504
10.33	3.21	0.2602	-0.0417	0.1877	-0.0589	0.1013	-0.0723	0.3630	-0.0505
10.50	3.24	0.2601	-0.0418	0.1876	-0.0590	0.1012	-0.0724	0.3629	-0.0506
10.67	3.27	0.2599	-0.0420	0.1875	-0.0591	0.1012	-0.0724	0.3628	-0.0507

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.2598	-0.0421	0.1873	-0.0593	0.1011	-0.0725	0.3627	-0.0508
11.00	3.32	0.2596	-0.0423	0.1871	-0.0595	0.1010	-0.0726	0.3626	-0.0509
11.17	3.34	0.2595	-0.0424	0.1870	-0.0596	0.1009	-0.0727	0.3625	-0.0510
11.33	3.37	0.2593	-0.0426	0.1870	-0.0596	0.1008	-0.0728	0.3624	-0.0511
11.50	3.39	0.2593	-0.0426	0.1868	-0.0598	0.1007	-0.0729	0.3624	-0.0511
11.67	3.42	0.2592	-0.0427	0.1867	-0.0599	0.1006	-0.0730	0.3624	-0.0511
11.83	3.44	0.2591	-0.0428	0.1866	-0.0600	0.1006	-0.0730	0.3623	-0.0512
12.00	3.46	0.2589	-0.0430	0.1865	-0.0601	0.1005	-0.0731	0.3623	-0.0512
12.17	3.49	0.2588	-0.0431	0.1863	-0.0603	0.1005	-0.0731	0.3621	-0.0514
12.33	3.51	0.2586	-0.0433	0.1862	-0.0604	0.1004	-0.0732	0.3621	-0.0514
12.50	3.54	0.2585	-0.0434	0.1862	-0.0604	0.1003	-0.0733	0.3620	-0.0515
12.67	3.56	0.2585	-0.0434	0.1861	-0.0605	0.1003	-0.0733	0.3619	-0.0516
12.83	3.58	0.2584	-0.0435	0.1860	-0.0606	0.1002	-0.0734	0.3618	-0.0517
13.00	3.61	0.2583	-0.0436	0.1859	-0.0607	0.1001	-0.0735	0.3618	-0.0517
13.17	3.63	0.2582	-0.0437	0.1858	-0.0608	0.1000	-0.0736	0.3618	-0.0517
13.33	3.65	0.2581	-0.0438	0.1857	-0.0609	0.1000	-0.0736	0.3617	-0.0518
13.50	3.67	0.2580	-0.0439	0.1856	-0.0610	0.0999	-0.0737	0.3616	-0.0519
13.67	3.70	0.2579	-0.0440	0.1855	-0.0611	0.0998	-0.0738	0.3616	-0.0519
13.83	3.72	0.2578	-0.0441	0.1854	-0.0612	0.0998	-0.0738	0.3616	-0.0519
14.00	3.74	0.2578	-0.0441	0.1854	-0.0612	0.0997	-0.0739	0.3616	-0.0519
14.17	3.76	0.2577	-0.0442	0.1854	-0.0612	0.0997	-0.0739	0.3615	-0.0520
14.33	3.79	0.2576	-0.0443	0.1853	-0.0613	0.0997	-0.0739	0.3614	-0.0521
14.50	3.81	0.2576	-0.0443	0.1852	-0.0614	0.0996	-0.0740	0.3614	-0.0521
14.67	3.83	0.2575	-0.0444	0.1851	-0.0615	0.0995	-0.0741	0.3613	-0.0522
14.83	3.85	0.2574	-0.0445	0.1850	-0.0616	0.0995	-0.0741	0.3612	-0.0523
15.33	3.92	0.2572	-0.0447	0.1849	-0.0617	0.0993	-0.0743	0.3611	-0.0524
15.83	3.98	0.2570	-0.0449	0.1847	-0.0619	0.0992	-0.0744	0.3609	-0.0526
16.33	4.04	0.2569	-0.0450	0.1846	-0.0620	0.0990	-0.0746	0.3608	-0.0527
16.83	4.10	0.2569	-0.0450	0.1844	-0.0622	0.0989	-0.0747	0.3607	-0.0528
17.33	4.16	0.2566	-0.0453	0.1842	-0.0624	0.0988	-0.0748	0.3606	-0.0529
17.83	4.22	0.2563	-0.0456	0.1840	-0.0626	0.0986	-0.0750	0.3604	-0.0531
18.33	4.28	0.2562	-0.0457	0.1839	-0.0627	0.0985	-0.0751	0.3603	-0.0532
18.83	4.34	0.2562	-0.0457	0.1838	-0.0628	0.0984	-0.0752	0.3602	-0.0533
19.33	4.40	0.2560	-0.0459	0.1837	-0.0629	0.0982	-0.0754	0.3601	-0.0534
19.83	4.45	0.2559	-0.0460	0.1835	-0.0631	0.0981	-0.0755	0.3600	-0.0535
20.33	4.51	0.2558	-0.0461	0.1834	-0.0632	0.0981	-0.0755	0.3600	-0.0535
20.83	4.56	0.2557	-0.0462	0.1833	-0.0633	0.0980	-0.0756	0.3598	-0.0537
21.33	4.62	0.2555	-0.0464	0.1832	-0.0634	0.0979	-0.0757	0.3597	-0.0538
21.83	4.67	0.2554	-0.0465	0.1830	-0.0636	0.0978	-0.0758	0.3596	-0.0539
22.33	4.73	0.2554	-0.0465	0.1830	-0.0636	0.0977	-0.0759	0.3595	-0.0540
22.83	4.78	0.2553	-0.0466	0.1829	-0.0637	0.0975	-0.0761	0.3594	-0.0541
23.33	4.83	0.2552	-0.0467	0.1828	-0.0638	0.0974	-0.0762	0.3593	-0.0542
23.83	4.88	0.2551	-0.0468	0.1827	-0.0639	0.0973	-0.0763	0.3592	-0.0543
24.33	4.93	0.2550	-0.0469	0.1826	-0.0640	0.0973	-0.0763	0.3592	-0.0543
24.83	4.98	0.2549	-0.0470	0.1825	-0.0641	0.0973	-0.0763	0.3591	-0.0544
25.33	5.03	0.2549	-0.0470	0.1824	-0.0642	0.0972	-0.0764	0.3590	-0.0545
25.83	5.08	0.2548	-0.0471	0.1823	-0.0643	0.0971	-0.0765	0.3589	-0.0546
26.33	5.13	0.2547	-0.0472	0.1823	-0.0643	0.0970	-0.0766	0.3588	-0.0547
26.83	5.18	0.2546	-0.0473	0.1822	-0.0644	0.0969	-0.0767	0.3588	-0.0547
27.33	5.23	0.2546	-0.0473	0.1821	-0.0645	0.0968	-0.0768	0.3587	-0.0548
27.83	5.28	0.2546	-0.0473	0.1820	-0.0646	0.0967	-0.0769	0.3586	-0.0549
28.33	5.32	0.2545	-0.0474	0.1819	-0.0647	0.0967	-0.0769	0.3585	-0.0550
28.83	5.37	0.2544	-0.0475	0.1818	-0.0648	0.0966	-0.0770	0.3584	-0.0551
29.33	5.42	0.2543	-0.0476	0.1818	-0.0648	0.0965	-0.0771	0.3584	-0.0551
29.83	5.46	0.2543	-0.0476	0.1817	-0.0649	0.0965	-0.0771	0.3584	-0.0551
30.33	5.51	0.2542	-0.0477	0.1816	-0.0650	0.0965	-0.0771	0.3583	-0.0552
30.83	5.55	0.2541	-0.0478	0.1815	-0.0651	0.0964	-0.0772	0.3582	-0.0553
31.33	5.60	0.2541	-0.0478	0.1815	-0.0651	0.0963	-0.0773	0.3582	-0.0553
31.83	5.64	0.2540	-0.0479	0.1815	-0.0651	0.0963	-0.0773	0.3581	-0.0554
32.33	5.69	0.2540	-0.0479	0.1814	-0.0652	0.0962	-0.0774	0.3580	-0.0555
32.83	5.73	0.2539	-0.0480	0.1814	-0.0652	0.0961	-0.0775	0.3579	-0.0556
33.33	5.77	0.2538	-0.0481	0.1813	-0.0653	0.0961	-0.0775	0.3579	-0.0556
33.83	5.82	0.2538	-0.0481	0.1813	-0.0653	0.0960	-0.0776	0.3578	-0.0557
34.33	5.86	0.2538	-0.0481	0.1812	-0.0654	0.0959	-0.0777	0.3577	-0.0558
34.83	5.90	0.2538	-0.0481	0.1811	-0.0655	0.0959	-0.0777	0.3577	-0.0558

Sample: Pond 12S, BH-2 @ 16.5 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.2537	-0.0482	0.1811	-0.0655	0.0958	-0.0778	0.3576	-0.0559
35.83	5.99	0.2537	-0.0482	0.1810	-0.0656	0.0958	-0.0778	0.3576	-0.0559
36.33	6.03	0.2536	-0.0483	0.1810	-0.0656	0.0957	-0.0779	0.3575	-0.0560
36.83	6.07	0.2536	-0.0483	0.1809	-0.0657	0.0957	-0.0779	0.3575	-0.0560
37.33	6.11	0.2535	-0.0484	0.1808	-0.0658	0.0957	-0.0779	0.3574	-0.0561
37.83	6.15	0.2535	-0.0484	0.1808	-0.0658	0.0956	-0.0780	0.3574	-0.0561
38.33	6.19	0.2535	-0.0484	0.1807	-0.0659	0.0956	-0.0780	0.3573	-0.0562
38.83	6.23	0.2534	-0.0485	0.1807	-0.0659	0.0955	-0.0781	0.3572	-0.0563
39.33	6.27	0.2534	-0.0485	0.1807	-0.0659	0.0955	-0.0781	0.3572	-0.0563
39.83	6.31	0.2533	-0.0486	0.1807	-0.0659	0.0954	-0.0782	0.3571	-0.0564
40.33	6.35	0.2533	-0.0486	0.1806	-0.0660	0.0953	-0.0783	0.3570	-0.0565
40.83	6.39	0.2532	-0.0487	0.1806	-0.0660	0.0953	-0.0783	0.3570	-0.0565
41.33	6.43	0.2532	-0.0487	0.1805	-0.0661	0.0953	-0.0783	0.3570	-0.0565
41.83	6.47	0.2531	-0.0488	0.1805	-0.0661	0.0952	-0.0784	0.3569	-0.0566
42.33	6.51	0.2531	-0.0488	0.1804	-0.0662	0.0952	-0.0784	0.3569	-0.0566
42.83	6.54	0.2531	-0.0488	0.1804	-0.0662	0.0951	-0.0785	0.3569	-0.0566
43.33	6.58	0.2530	-0.0489	0.1804	-0.0662	0.0951	-0.0785	0.3569	-0.0566
43.83	6.62	0.2530	-0.0489	0.1803	-0.0663	0.0950	-0.0786	0.3568	-0.0567
44.33	6.66	0.2530	-0.0489	0.1803	-0.0663	0.0950	-0.0786	0.3568	-0.0567
44.83	6.70	0.2530	-0.0489	0.1802	-0.0664	0.0949	-0.0787	0.3567	-0.0568
45.33	6.73	0.2530	-0.0489	0.1802	-0.0664	0.0949	-0.0787	0.3566	-0.0569
45.83	6.77	0.2530	-0.0489	0.1801	-0.0665	0.0949	-0.0787	0.3566	-0.0569
46.33	6.81	0.2529	-0.0490	0.1801	-0.0665	0.0949	-0.0787	0.3565	-0.0570
46.83	6.84	0.2529	-0.0490	0.1800	-0.0666	0.0949	-0.0787	0.3565	-0.0570
47.33	6.88	0.2528	-0.0491	0.1800	-0.0666	0.0948	-0.0788	0.3565	-0.0570
47.83	6.92	0.2528	-0.0491	0.1800	-0.0666	0.0948	-0.0788	0.3564	-0.0571
48.33	6.95	0.2528	-0.0491	0.1799	-0.0667	0.0948	-0.0788	0.3564	-0.0571
48.83	6.99	0.2527	-0.0492	0.1799	-0.0667	0.0947	-0.0789	0.3563	-0.0572
49.33	7.02	0.2527	-0.0492	0.1799	-0.0667	0.0947	-0.0789	0.3562	-0.0573
49.83	7.06	0.2527	-0.0492	0.1799	-0.0667	0.0947	-0.0789	0.3561	-0.0574
50.33	7.09	0.2526	-0.0493	0.1799	-0.0667	0.0946	-0.0790	0.3561	-0.0574
50.83	7.13	0.2526	-0.0493	0.1799	-0.0667	0.0946	-0.0790	0.3561	-0.0574
51.33	7.16	0.2526	-0.0493	0.1798	-0.0668	0.0945	-0.0791	0.3561	-0.0574
51.83	7.20	0.2525	-0.0494	0.1798	-0.0668	0.0945	-0.0791	0.3561	-0.0574
52.33	7.23	0.2525	-0.0494	0.1798	-0.0668	0.0944	-0.0792	0.3561	-0.0574
52.83	7.27	0.2525	-0.0494	0.1797	-0.0669	0.0944	-0.0792	0.3561	-0.0574
53.33	7.30	0.2524	-0.0495	0.1797	-0.0669	0.0944	-0.0792	0.3560	-0.0575
53.83	7.34	0.2524	-0.0495	0.1797	-0.0669	0.0943	-0.0793	0.3560	-0.0575
54.33	7.37	0.2524	-0.0495	0.1796	-0.0670	0.0943	-0.0793	0.3560	-0.0575
54.83	7.40	0.2523	-0.0496	0.1796	-0.0670	0.0943	-0.0793	0.3559	-0.0576
55.33	7.44	0.2523	-0.0496	0.1796	-0.0670	0.0943	-0.0793	0.3559	-0.0576
55.83	7.47	0.2523	-0.0496	0.1795	-0.0671	0.0942	-0.0794	0.3558	-0.0577
56.33	7.51	0.2523	-0.0496	0.1795	-0.0671	0.0942	-0.0794	0.3558	-0.0577
56.83	7.54	0.2523	-0.0496	0.1795	-0.0671	0.0942	-0.0794	0.3558	-0.0577
57.33	7.57	0.2523	-0.0496	0.1795	-0.0671	0.0942	-0.0794	0.3558	-0.0577
57.83	7.60	0.2523	-0.0496	0.1794	-0.0672	0.0942	-0.0794	0.3558	-0.0577
58.33	7.64	0.2522	-0.0497	0.1794	-0.0672	0.0942	-0.0794	0.3557	-0.0578
58.83	7.67	0.2522	-0.0497	0.1794	-0.0672	0.0941	-0.0795	0.3557	-0.0578
59.33	7.70	0.2522	-0.0497	0.1793	-0.0673	0.0941	-0.0795	0.3557	-0.0578
59.83	7.74	0.2521	-0.0498	0.1793	-0.0673	0.0941	-0.0795	0.3556	-0.0579
60.83	7.80	0.2521	-0.0498	0.1793	-0.0673	0.0940	-0.0796	0.3556	-0.0579
61.83	7.86	0.2520	-0.0499	0.1792	-0.0674	0.0940	-0.0796	0.3555	-0.0580
62.83	7.93	0.2520	-0.0499	0.1791	-0.0675	0.0939	-0.0797	0.3554	-0.0581
63.83	7.99	0.2519	-0.0500	0.1791	-0.0675	0.0938	-0.0798	0.3554	-0.0581
64.83	8.05	0.2519	-0.0500	0.1790	-0.0676	0.0938	-0.0798	0.3553	-0.0582
65.83	8.11	0.2519	-0.0500	0.1790	-0.0676	0.0937	-0.0799	0.3553	-0.0582
66.83	8.18	0.2518	-0.0501	0.1789	-0.0677	0.0937	-0.0799	0.3553	-0.0582
67.83	8.24	0.2518	-0.0501	0.1789	-0.0677	0.0936	-0.0800	0.3553	-0.0582
68.83	8.30	0.2517	-0.0502	0.1788	-0.0678	0.0936	-0.0800	0.3552	-0.0583
69.83	8.36	0.2517	-0.0502	0.1787	-0.0679	0.0935	-0.0801	0.3552	-0.0583
70.83	8.42	0.2516	-0.0503	0.1787	-0.0679	0.0934	-0.0802	0.3551	-0.0584
71.83	8.48	0.2516	-0.0503	0.1787	-0.0679	0.0934	-0.0802	0.3551	-0.0584
72.83	8.53	0.2516	-0.0503	0.1786	-0.0680	0.0934	-0.0802	0.3550	-0.0585
73.83	8.59	0.2515	-0.0504	0.1786	-0.0680	0.0934	-0.0802	0.3550	-0.0585
74.83	8.65	0.2515	-0.0504	0.1786	-0.0680	0.0934	-0.0802	0.3549	-0.0586

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.2515	-0.0504	0.1785	-0.0681	0.0933	-0.0803	0.3548	-0.0587
76.83	8.77	0.2515	-0.0504	0.1785	-0.0681	0.0933	-0.0803	0.3548	-0.0587
77.83	8.82	0.2515	-0.0504	0.1784	-0.0682	0.0932	-0.0804	0.3548	-0.0587
78.83	8.88	0.2515	-0.0504	0.1784	-0.0682	0.0932	-0.0804	0.3547	-0.0588
79.83	8.93	0.2512	-0.0507	0.1784	-0.0682	0.0932	-0.0804	0.3547	-0.0588
80.83	8.99	0.2512	-0.0507	0.1783	-0.0683	0.0931	-0.0805	0.3547	-0.0588
81.83	9.05	0.2511	-0.0508	0.1783	-0.0683	0.0930	-0.0806	0.3546	-0.0589
82.83	9.10	0.2511	-0.0508	0.1783	-0.0683	0.0930	-0.0806	0.3546	-0.0589
83.83	9.16	0.2511	-0.0508	0.1783	-0.0683	0.0930	-0.0806	0.3545	-0.0590
84.83	9.21	0.2511	-0.0508	0.1783	-0.0683	0.0930	-0.0806	0.3545	-0.0590
85.83	9.26	0.2510	-0.0509	0.1782	-0.0684	0.0929	-0.0807	0.3545	-0.0590
86.83	9.32	0.2510	-0.0509	0.1782	-0.0684	0.0929	-0.0807	0.3545	-0.0590
87.83	9.37	0.2510	-0.0509	0.1782	-0.0684	0.0928	-0.0808	0.3544	-0.0591
88.83	9.43	0.2509	-0.0510	0.1782	-0.0684	0.0928	-0.0808	0.3544	-0.0591
89.83	9.48	0.2509	-0.0510	0.1781	-0.0685	0.0928	-0.0808	0.3544	-0.0591
90.83	9.53	0.2509	-0.0510	0.1781	-0.0685	0.0927	-0.0809	0.3543	-0.0592
91.83	9.58	0.2508	-0.0511	0.1780	-0.0686	0.0927	-0.0809	0.3542	-0.0593
92.83	9.64	0.2508	-0.0511	0.1780	-0.0686	0.0926	-0.0810	0.3542	-0.0593
93.83	9.69	0.2508	-0.0511	0.1780	-0.0686	0.0926	-0.0810	0.3542	-0.0593
94.83	9.74	0.2507	-0.0512	0.1779	-0.0687	0.0926	-0.0810	0.3542	-0.0593
95.83	9.79	0.2507	-0.0512	0.1779	-0.0687	0.0926	-0.0810	0.3541	-0.0594
96.83	9.84	0.2507	-0.0512	0.1779	-0.0687	0.0926	-0.0810	0.3541	-0.0594
97.83	9.89	0.2507	-0.0512	0.1779	-0.0687	0.0925	-0.0811	0.3540	-0.0595
98.83	9.94	0.2507	-0.0512	0.1778	-0.0688	0.0925	-0.0811	0.3540	-0.0595
99.83	9.99	0.2507	-0.0512	0.1778	-0.0688	0.0925	-0.0811	0.3540	-0.0595
100.83	10.04	0.2507	-0.0512	0.1778	-0.0688	0.0925	-0.0811	0.3539	-0.0596
101.83	10.09	0.2506	-0.0513	0.1778	-0.0688	0.0924	-0.0812	0.3539	-0.0596
102.83	10.14	0.2506	-0.0513	0.1777	-0.0689	0.0924	-0.0812	0.3539	-0.0596
103.83	10.19	0.2506	-0.0513	0.1777	-0.0689	0.0923	-0.0813	0.3538	-0.0597
104.83	10.24	0.2506	-0.0513	0.1777	-0.0689	0.0923	-0.0813	0.3538	-0.0597
105.83	10.29	0.2505	-0.0514	0.1776	-0.0690	0.0923	-0.0813	0.3537	-0.0598
106.83	10.34	0.2505	-0.0514	0.1776	-0.0690	0.0922	-0.0814	0.3537	-0.0598
107.83	10.38	0.2505	-0.0514	0.1776	-0.0690	0.0922	-0.0814	0.3537	-0.0598
108.83	10.43	0.2505	-0.0514	0.1775	-0.0691	0.0922	-0.0814	0.3537	-0.0598
109.83	10.48	0.2504	-0.0515	0.1775	-0.0691	0.0921	-0.0815	0.3537	-0.0598
110.83	10.53	0.2504	-0.0515	0.1775	-0.0691	0.0921	-0.0815	0.3537	-0.0598
111.83	10.58	0.2504	-0.0515	0.1775	-0.0691	0.0921	-0.0815	0.3537	-0.0598
112.83	10.62	0.2503	-0.0516	0.1775	-0.0691	0.0921	-0.0815	0.3536	-0.0599
113.83	10.67	0.2503	-0.0516	0.1775	-0.0691	0.0920	-0.0816	0.3536	-0.0599
114.83	10.72	0.2503	-0.0516	0.1775	-0.0691	0.0920	-0.0816	0.3535	-0.0600
115.83	10.76	0.2503	-0.0516	0.1773	-0.0693	0.0919	-0.0817	0.3535	-0.0600
116.83	10.81	0.2503	-0.0516	0.1773	-0.0693	0.0920	-0.0816	0.3534	-0.0601
117.83	10.86	0.2502	-0.0517	0.1773	-0.0693	0.0919	-0.0817	0.3535	-0.0600
118.83	10.90	0.2502	-0.0517	0.1773	-0.0693	0.0919	-0.0817	0.3535	-0.0600
119.83	10.95	0.2502	-0.0517	0.1772	-0.0694	0.0919	-0.0817	0.3534	-0.0601
129.83	11.39	0.2499	-0.0520	0.1769	-0.0697	0.0917	-0.0819	0.3532	-0.0603
139.83	11.83	0.2498	-0.0521	0.1767	-0.0699	0.0914	-0.0822	0.3529	-0.0606
149.83	12.24	0.2496	-0.0523	0.1765	-0.0701	0.0913	-0.0823	0.3527	-0.0608
159.83	12.64	0.2495	-0.0524	0.1764	-0.0702	0.0911	-0.0825	0.3525	-0.0610
169.83	13.03	0.2493	-0.0526	0.1761	-0.0705	0.0910	-0.0826	0.3523	-0.0612
179.83	13.41	0.2491	-0.0528	0.1760	-0.0706	0.0908	-0.0828	0.3521	-0.0614
189.83	13.78	0.2491	-0.0528	0.1760	-0.0706	0.0907	-0.0829	0.3520	-0.0615
199.83	14.14	0.2490	-0.0529	0.1758	-0.0708	0.0904	-0.0832	0.3518	-0.0617
209.83	14.49	0.2490	-0.0529	0.1758	-0.0708	0.0903	-0.0833	0.3517	-0.0618
219.83	14.83	0.2489	-0.0530	0.1756	-0.0710	0.0903	-0.0833	0.3515	-0.0620
229.83	15.16	0.2488	-0.0531	0.1755	-0.0711	0.0902	-0.0834	0.3514	-0.0621
239.83	15.49	0.2487	-0.0532	0.1754	-0.0712	0.0901	-0.0835	0.3513	-0.0622
249.83	15.81	0.2486	-0.0533	0.1752	-0.0714	0.0899	-0.0837	0.3511	-0.0624
259.83	16.12	0.2485	-0.0534	0.1752	-0.0714	0.0898	-0.0838	0.3510	-0.0625
269.83	16.43	0.2485	-0.0534	0.1752	-0.0714	0.0897	-0.0839	0.3508	-0.0627
279.83	16.73	0.2484	-0.0535	0.1750	-0.0716	0.0896	-0.0840	0.3507	-0.0628
289.83	17.02	0.2484	-0.0535	0.1750	-0.0716	0.0895	-0.0841	0.3506	-0.0629
299.83	17.32	0.2483	-0.0536	0.1749	-0.0717	0.0894	-0.0842	0.3506	-0.0629
309.83	17.60	0.2483	-0.0536	0.1748	-0.0718	0.0894	-0.0842	0.3504	-0.0631
319.83	17.88	0.2483	-0.0536	0.1747	-0.0719	0.0893	-0.0843	0.3503	-0.0632

Sample: Pond 12S, BH-2 @ 16.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.2483	-0.0536	0.1746	-0.0720	0.0892	-0.0844	0.3502	-0.0633
339.83	18.43	0.2482	-0.0537	0.1745	-0.0721	0.0890	-0.0846	0.3500	-0.0635
349.83	18.70	0.2482	-0.0537	0.1744	-0.0722	0.0890	-0.0846	0.3500	-0.0635
359.83	18.97	0.2481	-0.0538	0.1744	-0.0722	0.0889	-0.0847	0.3499	-0.0636
369.83	19.23	0.2481	-0.0538	0.1744	-0.0722	0.0888	-0.0848	0.3498	-0.0637
379.83	19.49	0.2480	-0.0539	0.1743	-0.0723	0.0888	-0.0848	0.3498	-0.0637
389.83	19.74	0.2480	-0.0539	0.1742	-0.0724	0.0887	-0.0849	0.3497	-0.0638
399.83	20.00	0.2479	-0.0540	0.1740	-0.0726	0.0887	-0.0849	0.3496	-0.0639
409.83	20.24	0.2479	-0.0540	0.1740	-0.0726	0.0886	-0.0850	0.3495	-0.0640
419.83	20.49	0.2479	-0.0540	0.1740	-0.0726	0.0885	-0.0851	0.3496	-0.0639
429.83	20.73	0.2478	-0.0541	0.1739	-0.0727	0.0885	-0.0851	0.3494	-0.0641
439.83	20.97	0.2478	-0.0541	0.1738	-0.0728	0.0884	-0.0852	0.3494	-0.0641
449.83	21.21	0.2477	-0.0542	0.1737	-0.0729	0.0884	-0.0852	0.3493	-0.0642
459.83	21.44	0.2477	-0.0542	0.1737	-0.0729	0.0883	-0.0853	0.3492	-0.0643
469.83	21.68	0.2477	-0.0542	0.1736	-0.0730	0.0883	-0.0853	0.3491	-0.0644
479.83	21.91	0.2476	-0.0543	0.1736	-0.0730	0.0882	-0.0854	0.3490	-0.0645
489.83	22.13	0.2476	-0.0543			0.0882	-0.0854	0.3490	-0.0645
499.83	22.36	0.2475	-0.0544			0.0881	-0.0855	0.3490	-0.0645
509.83	22.58	0.2476	-0.0543			0.0881	-0.0855	0.3489	-0.0646
519.83	22.80	0.2475	-0.0544			0.0881	-0.0855	0.3488	-0.0647
529.83	23.02	0.2475	-0.0544			0.0880	-0.0856	0.3487	-0.0648
539.83	23.23	0.2475	-0.0544			0.0880	-0.0856	0.3487	-0.0648
549.83	23.45	0.2475	-0.0544			0.0879	-0.0857	0.3487	-0.0648
559.83	23.66	0.2475	-0.0544			0.0879	-0.0857	0.3486	-0.0649
569.83	23.87	0.2475	-0.0544			0.0879	-0.0857	0.3485	-0.0650
579.83	24.08	0.2474	-0.0545			0.0879	-0.0857	0.3485	-0.0650
589.83	24.29	0.2474	-0.0545			0.0879	-0.0857	0.3484	-0.0651
599.83	24.49	0.2474	-0.0545			0.0878	-0.0858	0.3483	-0.0652
609.83	24.69	0.2474	-0.0545			0.0878	-0.0858	0.3483	-0.0652
619.83	24.90	0.2474	-0.0545			0.0878	-0.0858	0.3483	-0.0652
629.83	25.10	0.2474	-0.0545			0.0878	-0.0858	0.3482	-0.0653
639.83	25.29	0.2474	-0.0545			0.0877	-0.0859	0.3482	-0.0653
649.83	25.49	0.2474	-0.0545			0.0877	-0.0859	0.3482	-0.0653
659.83	25.69	0.2474	-0.0545			0.0877	-0.0859	0.3482	-0.0653
669.83	25.88	0.2473	-0.0546			0.0877	-0.0859	0.3481	-0.0654
679.83	26.07	0.2473	-0.0546			0.0877	-0.0859	0.3481	-0.0654
689.83	26.26	0.2473	-0.0546			0.0876	-0.0860	0.3480	-0.0655
699.83	26.45	0.2472	-0.0547			0.0876	-0.0860	0.3480	-0.0655
709.83	26.64	0.2473	-0.0546			0.0876	-0.0860	0.3480	-0.0655
719.83	26.83	0.2473	-0.0546			0.0876	-0.0860	0.3480	-0.0655
749.83	27.38	0.2473	-0.0546			0.0875	-0.0861	0.3479	-0.0656
779.83	27.93	0.2473	-0.0546			0.0874	-0.0862	0.3479	-0.0656
809.83	28.46	0.2472	-0.0547			0.0873	-0.0863	0.3478	-0.0657
839.83	28.98	0.2470	-0.0549			0.0872	-0.0864	0.3477	-0.0658
869.83	29.49	0.2470	-0.0549			0.0872	-0.0864	0.3477	-0.0658
899.83	30.00	0.2470	-0.0549			0.0871	-0.0865	0.3476	-0.0659
929.83	30.49	0.2469	-0.0550			0.0871	-0.0865	0.3475	-0.0660
959.83	30.98	0.2469	-0.0550			0.0870	-0.0866	0.3475	-0.0660
989.83	31.46	0.2469	-0.0550			0.0870	-0.0866	0.3475	-0.0660
1019.83	31.93	0.2469	-0.0550			0.0869	-0.0867	0.3474	-0.0661
1049.83	32.40	0.2468	-0.0551			0.0869	-0.0867	0.3474	-0.0661
1079.83	32.86	0.2468	-0.0551			0.0868	-0.0868	0.3473	-0.0662
1109.83	33.31	0.2468	-0.0551			0.0867	-0.0869	0.3473	-0.0662
1139.83	33.76					0.0866	-0.0870	0.3473	-0.0662
1169.83	34.20					0.0864	-0.0872	0.3473	-0.0662
1199.83	34.64					0.0863	-0.0873	0.3472	-0.0663
1229.83	35.07					0.0863	-0.0873	0.3471	-0.0664
1259.83	35.49					0.0863	-0.0873		

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 12S, BH-3 @ 10.8 feet
Sample Ht.	1.625 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.012 (cu-ft)
Phos Cont.	5.63 (%)
Init. M.C.	167.99 (%)
Init. M.C. (corr)	132.85 (%)
Final M.C.	127.82 (%)
Final M.C. (corr)	101.92 (%)
Dry Wt. of Soil/f	157.91 (g)
Dry Wt. of Soil/i	198.45 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	23.02
Phos. Wt. (g)	1.30
Dry Wt. (g)	8.59
Dry Wt. + Phos Wt. (g)	9.89
Water Wt. + Phos (g)	14.43
Water Wt. (g)	13.13
(final)	
Total Wet Wt. (g)	24.24
Phos. Wt. (g)	1.36
Dry Wt. (g)	10.64
Dry Wt. + Phos Wt. (g)	12.00
Water Wt. + Phos (g)	13.6
Water Wt. (g)	12.24

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry Density	Void Ratio (e)	Dry Density (pcf)
						(pcf)		
0.0010	0.4418	0.0000	1.6250	0	4.915	29.43	3.707	36.99
0.0250	0.2806	0.1612	1.4638	9.92	4.328	32.67	3.240	41.06
0.0500	0.2457	0.1960	1.4290	12.06	4.202	33.47	3.139	42.06
0.1000	0.1966	0.2450	1.3800	15.08	4.023	34.66	2.997	43.56
0.2500	0.1272	0.3144	1.3106	19.35	3.771	36.49	2.796	45.86
0.5000	0.0692	0.3723	1.2527	22.91	3.560	38.18	2.628	47.98
1.0000	0.3873	0.4268	1.1982	26.26	3.362	39.92	2.470	50.17
2.0000	0.3196	0.4945	1.1305	30.43	3.115	42.31	2.274	53.17
4.0000	0.2465	0.5691	1.0559	35.02	2.844	45.30	2.058	56.93

Note: Initial MC not taken from actual sample tested, but from same sample jar.
 Final MC taken from actual sample tested.
 Void Ratio (e), calculated from final MC likely to be most accurate.
 Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 12S, BH-3 @ 10.8 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4418	0.0000	0.2805	0.0000	0.2456	0.0000	0.1966	0.0000
0.17	0.41	0.4418	0.0000	0.2805	0.0000	0.2456	0.0000	0.1967	0.0001
0.33	0.58	0.4418	0.0000	0.2802	-0.0003	0.2456	0.0000	0.1925	-0.0041
0.50	0.71	0.4363	-0.0055	0.2795	-0.0010	0.2456	0.0000	0.1889	-0.0077
0.67	0.82	0.4352	-0.0066	0.2788	-0.0017	0.2406	-0.0050	0.1889	-0.0077
0.83	0.91	0.4337	-0.0081	0.2783	-0.0022	0.2397	-0.0059	0.1826	-0.0140
1.00	1.00	0.4327	-0.0091	0.2779	-0.0026	0.2389	-0.0067	0.1815	-0.0151
1.17	1.08	0.4310	-0.0108	0.2776	-0.0029	0.2378	-0.0078	0.1800	-0.0166
1.33	1.15	0.4301	-0.0117	0.2770	-0.0035	0.2371	-0.0085	0.1778	-0.0188
1.50	1.22	0.4291	-0.0127	0.2767	-0.0038	0.2364	-0.0092	0.1764	-0.0202
1.67	1.29	0.4279	-0.0139	0.2764	-0.0041	0.2358	-0.0098	0.1742	-0.0224
1.83	1.35	0.4268	-0.0150	0.2760	-0.0045	0.2358	-0.0098	0.1733	-0.0233
2.00	1.41	0.4268	-0.0150	0.2756	-0.0049	0.2339	-0.0117	0.1720	-0.0246
2.17	1.47	0.4268	-0.0150	0.2752	-0.0053	0.2335	-0.0121	0.1720	-0.0246
2.33	1.53	0.4237	-0.0181	0.2749	-0.0056	0.2329	-0.0127	0.1720	-0.0246
2.50	1.58	0.4224	-0.0194	0.2749	-0.0056	0.2318	-0.0138	0.1681	-0.0285
2.67	1.63	0.4215	-0.0203	0.2743	-0.0062	0.2314	-0.0142	0.1672	-0.0294
2.83	1.68	0.4202	-0.0216	0.2742	-0.0063	0.2305	-0.0151	0.1660	-0.0306
3.00	1.73	0.4193	-0.0225	0.2737	-0.0068	0.2300	-0.0156	0.1647	-0.0319
3.17	1.78	0.4185	-0.0233	0.2735	-0.0070	0.2295	-0.0161	0.1640	-0.0326
3.33	1.83	0.4175	-0.0243	0.2732	-0.0073	0.2292	-0.0164	0.1627	-0.0339
3.50	1.87	0.4170	-0.0248	0.2732	-0.0073	0.2292	-0.0164	0.1618	-0.0348
3.67	1.91	0.4170	-0.0248	0.2732	-0.0073	0.2276	-0.0180	0.1611	-0.0355
3.83	1.96	0.4170	-0.0248	0.2732	-0.0073	0.2273	-0.0183	0.1611	-0.0355
4.00	2.00	0.4141	-0.0277	0.2732	-0.0073	0.2268	-0.0188	0.1611	-0.0355
4.17	2.04	0.4129	-0.0289	0.2732	-0.0073	0.2262	-0.0194	0.1581	-0.0385
4.33	2.08	0.4122	-0.0296	0.2711	-0.0094	0.2258	-0.0198	0.1574	-0.0392
4.50	2.12	0.4111	-0.0307	0.2711	-0.0094	0.2252	-0.0204	0.1568	-0.0398
4.67	2.16	0.4104	-0.0314	0.2711	-0.0094	0.2248	-0.0208	0.1558	-0.0408
4.83	2.20	0.4095	-0.0323	0.2711	-0.0094	0.2245	-0.0211	0.1551	-0.0415
5.00	2.24	0.4084	-0.0334	0.2711	-0.0094	0.2242	-0.0214	0.1544	-0.0422
5.17	2.27	0.4080	-0.0338	0.2711	-0.0094	0.2242	-0.0214	0.1535	-0.0431
5.33	2.31	0.4068	-0.0350	0.2711	-0.0094	0.2242	-0.0214	0.1533	-0.0433
5.50	2.35	0.4058	-0.0360	0.2711	-0.0094	0.2226	-0.0230	0.1533	-0.0433
5.67	2.38	0.4050	-0.0368	0.2711	-0.0094	0.2222	-0.0234	0.1533	-0.0433
5.83	2.42	0.4040	-0.0378	0.2711	-0.0094	0.2217	-0.0239	0.1508	-0.0458
6.00	2.45	0.4033	-0.0385	0.2711	-0.0094	0.2213	-0.0243	0.1503	-0.0463
6.17	2.48	0.4019	-0.0399	0.2711	-0.0094	0.2211	-0.0245	0.1498	-0.0468
6.33	2.52	0.4011	-0.0407	0.2711	-0.0094	0.2205	-0.0251	0.1491	-0.0475
6.50	2.55	0.4001	-0.0417	0.2711	-0.0094	0.2202	-0.0254	0.1487	-0.0479
6.67	2.58	0.3994	-0.0424	0.2711	-0.0094	0.2196	-0.0260	0.1480	-0.0486
6.83	2.61	0.3982	-0.0436	0.2711	-0.0094	0.2194	-0.0262	0.1476	-0.0490
7.00	2.65	0.3975	-0.0443	0.2665	-0.0140	0.2189	-0.0267	0.1470	-0.0496
7.17	2.68	0.3964	-0.0454	0.2665	-0.0140	0.2186	-0.0270	0.1465	-0.0501
7.33	2.71	0.3957	-0.0461	0.2665	-0.0140	0.2182	-0.0274	0.1460	-0.0506
7.50	2.74	0.3947	-0.0471	0.2665	-0.0140	0.2179	-0.0277	0.1455	-0.0511
7.67	2.77	0.3943	-0.0475	0.2665	-0.0140	0.2175	-0.0281	0.1451	-0.0515
7.83	2.80	0.3932	-0.0486	0.2665	-0.0140	0.2172	-0.0284	0.1447	-0.0519
8.00	2.83	0.3926	-0.0492	0.2665	-0.0140	0.2169	-0.0287	0.1443	-0.0523
8.17	2.86	0.3918	-0.0500	0.2665	-0.0140	0.2166	-0.0290	0.1438	-0.0528
8.33	2.89	0.3912	-0.0506	0.2665	-0.0140	0.2162	-0.0294	0.1434	-0.0532
8.50	2.92	0.3900	-0.0518	0.2665	-0.0140	0.2160	-0.0296	0.1431	-0.0535
8.67	2.94	0.3894	-0.0524	0.2665	-0.0140	0.2156	-0.0300	0.1427	-0.0539
8.83	2.97	0.3885	-0.0533	0.2641	-0.0164	0.2154	-0.0302	0.1423	-0.0543
9.00	3.00	0.3878	-0.0540	0.2639	-0.0166	0.2151	-0.0305	0.1420	-0.0546
9.17	3.03	0.3869	-0.0549	0.2639	-0.0166	0.2149	-0.0307	0.1417	-0.0549
9.33	3.06	0.3863	-0.0555	0.2639	-0.0166	0.2145	-0.0311	0.1414	-0.0552
9.50	3.08	0.3857	-0.0561	0.2639	-0.0166	0.2143	-0.0313	0.1411	-0.0555
9.67	3.11	0.3850	-0.0568	0.2631	-0.0174	0.2140	-0.0316	0.1408	-0.0558
9.83	3.14	0.3840	-0.0578	0.2631	-0.0174	0.2138	-0.0318	0.1405	-0.0561
10.00	3.16	0.3834	-0.0584	0.2627	-0.0178	0.2134	-0.0322	0.1403	-0.0563
10.17	3.19	0.3825	-0.0593	0.2625	-0.0180	0.2133	-0.0323	0.1400	-0.0566
10.33	3.21	0.3818	-0.0600	0.2625	-0.0180	0.2129	-0.0327	0.1397	-0.0569
10.50	3.24	0.3811	-0.0607	0.2625	-0.0180	0.2128	-0.0328	0.1395	-0.0571
10.67	3.27	0.3804	-0.0614	0.2625	-0.0180	0.2125	-0.0331	0.1393	-0.0573

Sample: Pond 12S, BH-3 @ 10.8 feet

Time minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.3796	-0.0622	0.2625	-0.0180	0.2123	-0.0333	0.1392	-0.0574
11.00	3.32	0.3792	-0.0626	0.2625	-0.0180	0.2121	-0.0335	0.1388	-0.0578
11.17	3.34	0.3782	-0.0636	0.2614	-0.0191	0.2119	-0.0337	0.1386	-0.0580
11.33	3.37	0.3777	-0.0641	0.2613	-0.0192	0.2116	-0.0340	0.1384	-0.0582
11.50	3.39	0.3769	-0.0649	0.2613	-0.0192	0.2114	-0.0342	0.1383	-0.0583
11.67	3.42	0.3763	-0.0655	0.2610	-0.0195	0.2112	-0.0344	0.1382	-0.0584
11.83	3.44	0.3755	-0.0663	0.2610	-0.0195	0.2110	-0.0346	0.1378	-0.0588
12.00	3.46	0.3750	-0.0668	0.2610	-0.0195	0.2108	-0.0348	0.1376	-0.0590
12.17	3.49	0.3742	-0.0676	0.2610	-0.0195	0.2106	-0.0350	0.1376	-0.0590
12.33	3.51	0.3737	-0.0681	0.2610	-0.0195	0.2104	-0.0352	0.1374	-0.0592
12.50	3.54	0.3729	-0.0689	0.2610	-0.0195	0.2102	-0.0354	0.1374	-0.0592
12.67	3.56	0.3724	-0.0694	0.2610	-0.0195	0.2100	-0.0356	0.1374	-0.0592
12.83	3.58	0.3715	-0.0703	0.2610	-0.0195	0.2099	-0.0357	0.1374	-0.0592
13.00	3.61	0.3710	-0.0708	0.2610	-0.0195	0.2096	-0.0360	0.1374	-0.0592
13.17	3.63	0.3702	-0.0716	0.2610	-0.0195	0.2094	-0.0362	0.1374	-0.0592
13.33	3.65	0.3698	-0.0720	0.2610	-0.0195	0.2092	-0.0364	0.1374	-0.0592
13.50	3.67	0.3689	-0.0729	0.2610	-0.0195	0.2091	-0.0365	0.1374	-0.0592
13.67	3.70	0.3685	-0.0733	0.2610	-0.0195	0.2090	-0.0366	0.1363	-0.0603
13.83	3.72	0.3679	-0.0739	0.2589	-0.0216	0.2089	-0.0367	0.1363	-0.0603
14.00	3.74	0.3673	-0.0745	0.2589	-0.0216	0.2086	-0.0370	0.1363	-0.0603
14.17	3.76	0.3665	-0.0753	0.2589	-0.0216	0.2085	-0.0371	0.1363	-0.0603
14.33	3.79	0.3660	-0.0758	0.2584	-0.0221	0.2083	-0.0373	0.1363	-0.0603
14.50	3.81	0.3653	-0.0765	0.2583	-0.0222	0.2082	-0.0374	0.1363	-0.0603
14.67	3.83	0.3648	-0.0770	0.2583	-0.0222	0.2081	-0.0375	0.1363	-0.0603
14.83	3.85	0.3642	-0.0776	0.2583	-0.0222	0.2080	-0.0376	0.1363	-0.0603
15.33	3.92	0.3627	-0.0791	0.2577	-0.0228	0.2075	-0.0381	0.1363	-0.0603
15.83	3.98	0.3608	-0.0810	0.2576	-0.0229	0.2072	-0.0384	0.1363	-0.0603
16.33	4.04	0.3592	-0.0826	0.2576	-0.0229	0.2068	-0.0388	0.1363	-0.0603
16.83	4.10	0.3574	-0.0844	0.2576	-0.0229	0.2065	-0.0391	0.1342	-0.0624
17.33	4.16	0.3559	-0.0859	0.2576	-0.0229	0.2061	-0.0395	0.1342	-0.0624
17.83	4.22	0.3541	-0.0877	0.2561	-0.0244	0.2058	-0.0398	0.1342	-0.0624
18.33	4.28	0.3526	-0.0892	0.2561	-0.0244	0.2056	-0.0400	0.1335	-0.0631
18.83	4.34	0.3508	-0.0910	0.2556	-0.0249	0.2053	-0.0403	0.1333	-0.0633
19.33	4.40	0.3493	-0.0925	0.2556	-0.0249	0.2051	-0.0405	0.1333	-0.0633
19.83	4.45	0.3475	-0.0943	0.2556	-0.0249	0.2049	-0.0407	0.1330	-0.0636
20.33	4.51	0.3462	-0.0956	0.2556	-0.0249	0.2047	-0.0409	0.1330	-0.0636
20.83	4.56	0.3445	-0.0973	0.2556	-0.0249	0.2046	-0.0410	0.1330	-0.0636
21.33	4.62	0.3432	-0.0986	0.2543	-0.0262	0.2044	-0.0412	0.1330	-0.0636
21.83	4.67	0.3417	-0.1001	0.2543	-0.0262	0.2042	-0.0414	0.1324	-0.0642
22.33	4.73	0.3406	-0.1012	0.2536	-0.0269	0.2040	-0.0416	0.1324	-0.0642
22.83	4.78	0.3390	-0.1028	0.2536	-0.0269	0.2038	-0.0418	0.1324	-0.0642
23.33	4.83	0.3378	-0.1040	0.2533	-0.0272	0.2038	-0.0418	0.1321	-0.0645
23.83	4.88	0.3364	-0.1054	0.2530	-0.0275	0.2036	-0.0420	0.1321	-0.0645
24.33	4.93	0.3352	-0.1066	0.2530	-0.0275	0.2035	-0.0421	0.1319	-0.0647
24.83	4.98	0.3339	-0.1079	0.2527	-0.0278	0.2034	-0.0422	0.1318	-0.0648
25.33	5.03	0.3327	-0.1091	0.2525	-0.0280	0.2032	-0.0424	0.1318	-0.0648
25.83	5.08	0.3315	-0.1103	0.2523	-0.0282	0.2031	-0.0425	0.1316	-0.0650
26.33	5.13	0.3303	-0.1115	0.2522	-0.0283	0.2030	-0.0426	0.1316	-0.0650
26.83	5.18	0.3291	-0.1127	0.2522	-0.0283	0.2029	-0.0427	0.1316	-0.0650
27.33	5.23	0.3279	-0.1139	0.2517	-0.0288	0.2028	-0.0428	0.1314	-0.0652
27.83	5.28	0.3266	-0.1152	0.2517	-0.0288	0.2027	-0.0429	0.1313	-0.0653
28.33	5.32	0.3255	-0.1163	0.2516	-0.0289	0.2026	-0.0430	0.1313	-0.0653
28.83	5.37	0.3244	-0.1174	0.2515	-0.0290	0.2025	-0.0431	0.1313	-0.0653
29.33	5.42	0.3234	-0.1184	0.2512	-0.0293	0.2024	-0.0432	0.1313	-0.0653
29.83	5.46	0.3223	-0.1195	0.2512	-0.0293	0.2023	-0.0433	0.1309	-0.0657
30.33	5.51	0.3213	-0.1205	0.2509	-0.0296	0.2022	-0.0434	0.1309	-0.0657
30.83	5.55	0.3203	-0.1215	0.2509	-0.0296	0.2021	-0.0435	0.1309	-0.0657
31.33	5.60	0.3193	-0.1225	0.2508	-0.0297	0.2021	-0.0435	0.1309	-0.0657
31.83	5.64	0.3183	-0.1235	0.2508	-0.0297	0.2020	-0.0436	0.1307	-0.0659
32.33	5.69	0.3175	-0.1243	0.2506	-0.0299	0.2019	-0.0437	0.1307	-0.0659
32.83	5.73	0.3166	-0.1252	0.2506	-0.0299	0.2019	-0.0437	0.1307	-0.0659
33.33	5.77	0.3157	-0.1261	0.2506	-0.0299	0.2018	-0.0438	0.1306	-0.0660
33.83	5.82	0.3147	-0.1271	0.2506	-0.0299	0.2017	-0.0439	0.1306	-0.0660
34.33	5.86	0.3139	-0.1279	0.2506	-0.0299	0.2017	-0.0439	0.1306	-0.0660
34.83	5.90	0.3130	-0.1288	0.2500	-0.0305	0.2016	-0.0440	0.1306	-0.0660

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.3122	-0.1296	0.2500	-0.0305	0.2015	-0.0441	0.1305	-0.0661
35.83	5.99	0.3114	-0.1304	0.2500	-0.0305	0.2015	-0.0441	0.1304	-0.0662
36.33	6.03	0.3106	-0.1312	0.2498	-0.0307	0.2014	-0.0442	0.1303	-0.0663
36.83	6.07	0.3098	-0.1320	0.2498	-0.0307	0.2014	-0.0442	0.1303	-0.0663
37.33	6.11	0.3091	-0.1327	0.2498	-0.0307	0.2013	-0.0443	0.1303	-0.0663
37.83	6.15	0.3083	-0.1335	0.2498	-0.0307	0.2013	-0.0443	0.1303	-0.0663
38.33	6.19	0.3076	-0.1342	0.2495	-0.0310	0.2012	-0.0444	0.1302	-0.0664
38.83	6.23	0.3069	-0.1349	0.2495	-0.0310	0.2012	-0.0444	0.1302	-0.0664
39.33	6.27	0.3063	-0.1355	0.2495	-0.0310	0.2012	-0.0444	0.1302	-0.0664
39.83	6.31	0.3057	-0.1361	0.2495	-0.0310	0.2012	-0.0444	0.1302	-0.0664
40.33	6.35	0.3051	-0.1367	0.2492	-0.0313	0.2011	-0.0445	0.1300	-0.0666
40.83	6.39	0.3045	-0.1373	0.2492	-0.0313	0.2011	-0.0445	0.1300	-0.0666
41.33	6.43	0.3040	-0.1378	0.2491	-0.0314	0.2011	-0.0445	0.1300	-0.0666
41.83	6.47	0.3034	-0.1384	0.2491	-0.0314	0.2010	-0.0446	0.1299	-0.0667
42.33	6.51	0.3029	-0.1389	0.2490	-0.0315	0.2010	-0.0446	0.1299	-0.0667
42.83	6.54	0.3023	-0.1395	0.2490	-0.0315	0.2009	-0.0447	0.1298	-0.0668
43.33	6.58	0.3019	-0.1399	0.2490	-0.0315	0.2009	-0.0447	0.1298	-0.0668
43.83	6.62	0.3013	-0.1405	0.2488	-0.0317	0.2009	-0.0447	0.1298	-0.0668
44.33	6.66	0.3008	-0.1410	0.2488	-0.0317	0.2008	-0.0448	0.1298	-0.0668
44.83	6.70	0.3002	-0.1416	0.2488	-0.0317	0.2008	-0.0448	0.1298	-0.0668
45.33	6.73	0.2997	-0.1421	0.2488	-0.0317	0.2008	-0.0448	0.1298	-0.0668
45.83	6.77	0.2992	-0.1426	0.2488	-0.0317	0.2007	-0.0449	0.1298	-0.0668
46.33	6.81	0.2988	-0.1430	0.2486	-0.0319	0.2006	-0.0450	0.1298	-0.0668
46.83	6.84	0.2984	-0.1434	0.2486	-0.0319	0.2006	-0.0450	0.1298	-0.0668
47.33	6.88	0.2980	-0.1438	0.2486	-0.0319	0.2006	-0.0450	0.1298	-0.0668
47.83	6.92	0.2976	-0.1442	0.2486	-0.0319	0.2005	-0.0451	0.1297	-0.0669
48.33	6.95	0.2971	-0.1447	0.2484	-0.0321	0.2005	-0.0451	0.1297	-0.0669
48.83	6.99	0.2968	-0.1450	0.2483	-0.0322	0.2005	-0.0451	0.1297	-0.0669
49.33	7.02	0.2964	-0.1454	0.2483	-0.0322	0.2005	-0.0451	0.1296	-0.0670
49.83	7.06	0.2959	-0.1459	0.2482	-0.0323	0.2004	-0.0452	0.1296	-0.0670
50.33	7.09	0.2955	-0.1463	0.2482	-0.0323	0.2004	-0.0452	0.1296	-0.0670
50.83	7.13	0.2952	-0.1466	0.2482	-0.0323	0.2004	-0.0452	0.1296	-0.0670
51.33	7.16	0.2948	-0.1470	0.2482	-0.0323	0.2003	-0.0453	0.1296	-0.0670
51.83	7.20	0.2944	-0.1474	0.2482	-0.0323	0.2003	-0.0453	0.1296	-0.0670
52.33	7.23	0.2942	-0.1476	0.2481	-0.0324	0.2003	-0.0453	0.1295	-0.0671
52.83	7.27	0.2939	-0.1479	0.2481	-0.0324	0.2003	-0.0453	0.1295	-0.0671
53.33	7.30	0.2935	-0.1483	0.2481	-0.0324	0.2003	-0.0453	0.1294	-0.0672
53.83	7.34	0.2933	-0.1485	0.2480	-0.0325	0.2003	-0.0453	0.1294	-0.0672
54.33	7.37	0.2930	-0.1488	0.2480	-0.0325	0.2003	-0.0453	0.1294	-0.0672
54.83	7.40	0.2927	-0.1491	0.2480	-0.0325	0.2003	-0.0453	0.1294	-0.0672
55.33	7.44	0.2926	-0.1492	0.2480	-0.0325	0.2003	-0.0453	0.1293	-0.0673
55.83	7.47	0.2923	-0.1495	0.2479	-0.0326	0.2002	-0.0454	0.1293	-0.0673
56.33	7.51	0.2921	-0.1497	0.2479	-0.0326	0.2002	-0.0454	0.1293	-0.0673
56.83	7.54	0.2918	-0.1500	0.2479	-0.0326	0.2002	-0.0454	0.1293	-0.0673
57.33	7.57	0.2917	-0.1501	0.2479	-0.0326	0.2002	-0.0454	0.1293	-0.0673
57.83	7.60	0.2915	-0.1503	0.2478	-0.0327	0.2001	-0.0455	0.1293	-0.0673
58.33	7.64	0.2912	-0.1506	0.2478	-0.0327	0.2001	-0.0455	0.1292	-0.0674
58.83	7.67	0.2910	-0.1508	0.2478	-0.0327	0.2001	-0.0455	0.1292	-0.0674
59.33	7.70	0.2909	-0.1509	0.2477	-0.0328	0.2001	-0.0455	0.1292	-0.0674
59.83	7.74	0.2906	-0.1512	0.2477	-0.0328	0.2001	-0.0455	0.1292	-0.0674
60.83	7.80	0.2902	-0.1516	0.2477	-0.0328	0.2000	-0.0456	0.1292	-0.0674
61.83	7.86	0.2899	-0.1519	0.2477	-0.0328	0.2000	-0.0456	0.1292	-0.0674
62.83	7.93	0.2896	-0.1522	0.2476	-0.0329	0.2000	-0.0456	0.1291	-0.0675
63.83	7.99	0.2894	-0.1524	0.2475	-0.0330	0.1999	-0.0457	0.1291	-0.0675
64.83	8.05	0.2892	-0.1526	0.2475	-0.0330	0.1999	-0.0457	0.1291	-0.0675
65.83	8.11	0.2890	-0.1528	0.2474	-0.0331	0.1999	-0.0457	0.1290	-0.0676
66.83	8.18	0.2887	-0.1531	0.2474	-0.0331	0.1998	-0.0458	0.1290	-0.0676
67.83	8.24	0.2884	-0.1534	0.2474	-0.0331	0.1998	-0.0458	0.1290	-0.0676
68.83	8.30	0.2882	-0.1536	0.2474	-0.0331	0.1998	-0.0458	0.1290	-0.0676
69.83	8.36	0.2879	-0.1539	0.2474	-0.0331	0.1998	-0.0458	0.1290	-0.0676
70.83	8.42	0.2875	-0.1543	0.2474	-0.0331	0.1997	-0.0459	0.1289	-0.0677
71.83	8.48	0.2874	-0.1544	0.2471	-0.0334	0.1997	-0.0459	0.1289	-0.0677
72.83	8.53	0.2874	-0.1544	0.2471	-0.0334	0.1997	-0.0459	0.1288	-0.0678
73.83	8.59	0.2872	-0.1546	0.2471	-0.0334	0.1997	-0.0459	0.1288	-0.0678
74.83	8.65	0.2869	-0.1549	0.2471	-0.0334	0.1997	-0.0459	0.1288	-0.0678

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.2867	-0.1551	0.2471	-0.0334	0.1997	-0.0459	0.1287	-0.0679
76.83	8.77	0.2866	-0.1552	0.2470	-0.0335	0.1996	-0.0460	0.1287	-0.0679
77.83	8.82	0.2866	-0.1552	0.2470	-0.0335	0.1996	-0.0460	0.1287	-0.0679
78.83	8.88	0.2865	-0.1553	0.2470	-0.0335	0.1995	-0.0461	0.1287	-0.0679
79.83	8.93	0.2863	-0.1555	0.2470	-0.0335	0.1995	-0.0461	0.1287	-0.0679
80.83	8.99	0.2861	-0.1557	0.2470	-0.0335	0.1995	-0.0461	0.1287	-0.0679
81.83	9.05	0.2859	-0.1559	0.2470	-0.0335	0.1995	-0.0461	0.1287	-0.0679
82.83	9.10	0.2858	-0.1560	0.2468	-0.0337	0.1995	-0.0461	0.1287	-0.0679
83.83	9.16	0.2857	-0.1561	0.2468	-0.0337	0.1995	-0.0461	0.1287	-0.0679
84.83	9.21	0.2857	-0.1561	0.2468	-0.0337	0.1995	-0.0461	0.1287	-0.0679
85.83	9.26	0.2856	-0.1562	0.2468	-0.0337	0.1995	-0.0461	0.1286	-0.0680
86.83	9.32	0.2855	-0.1563	0.2468	-0.0337	0.1995	-0.0461	0.1286	-0.0680
87.83	9.37	0.2854	-0.1564	0.2468	-0.0337	0.1995	-0.0461	0.1286	-0.0680
88.83	9.43	0.2852	-0.1566	0.2467	-0.0338	0.1994	-0.0462	0.1285	-0.0681
89.83	9.48	0.2850	-0.1568	0.2467	-0.0338	0.1994	-0.0462	0.1285	-0.0681
90.83	9.53	0.2849	-0.1569	0.2467	-0.0338	0.1994	-0.0462	0.1285	-0.0681
91.83	9.58	0.2848	-0.1570	0.2467	-0.0338	0.1994	-0.0462	0.1284	-0.0682
92.83	9.64	0.2848	-0.1570	0.2466	-0.0339	0.1994	-0.0462	0.1284	-0.0682
93.83	9.69	0.2847	-0.1571	0.2466	-0.0339	0.1993	-0.0463	0.1283	-0.0683
94.83	9.74	0.2847	-0.1571	0.2466	-0.0339	0.1993	-0.0463	0.1283	-0.0683
95.83	9.79	0.2846	-0.1572	0.2466	-0.0339	0.1993	-0.0463	0.1283	-0.0683
96.83	9.84	0.2846	-0.1572	0.2465	-0.0340	0.1993	-0.0463	0.1283	-0.0683
97.83	9.89	0.2846	-0.1572	0.2465	-0.0340	0.1993	-0.0463	0.1282	-0.0684
98.83	9.94	0.2846	-0.1572	0.2465	-0.0340	0.1993	-0.0463	0.1282	-0.0684
99.83	9.99	0.2845	-0.1573	0.2465	-0.0340	0.1992	-0.0464	0.1282	-0.0684
100.83	10.04	0.2845	-0.1573	0.2465	-0.0340	0.1991	-0.0465	0.1282	-0.0684
101.83	10.09	0.2845	-0.1573	0.2465	-0.0340	0.1991	-0.0465	0.1282	-0.0684
102.83	10.14	0.2845	-0.1573	0.2465	-0.0340	0.1991	-0.0465	0.1282	-0.0684
103.83	10.19	0.2842	-0.1576	0.2464	-0.0341	0.1991	-0.0465	0.1282	-0.0684
104.83	10.24	0.2842	-0.1576	0.2464	-0.0341	0.1991	-0.0465	0.1282	-0.0684
105.83	10.29	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1282	-0.0684
106.83	10.34	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1282	-0.0684
107.83	10.38	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1282	-0.0684
108.83	10.43	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1281	-0.0685
109.83	10.48	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1281	-0.0685
110.83	10.53	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1281	-0.0685
111.83	10.58	0.2840	-0.1578	0.2464	-0.0341	0.1991	-0.0465	0.1281	-0.0685
112.83	10.62	0.2840	-0.1578	0.2463	-0.0342	0.1991	-0.0465	0.1281	-0.0685
113.83	10.67	0.2839	-0.1579	0.2463	-0.0342	0.1991	-0.0465	0.1281	-0.0685
114.83	10.72	0.2837	-0.1581	0.2463	-0.0342	0.1991	-0.0465	0.1280	-0.0686
115.83	10.76	0.2836	-0.1582	0.2463	-0.0342	0.1991	-0.0465	0.1280	-0.0686
116.83	10.81	0.2835	-0.1583	0.2462	-0.0343	0.1990	-0.0466	0.1280	-0.0686
117.83	10.86	0.2835	-0.1583	0.2461	-0.0344	0.1990	-0.0466	0.1280	-0.0686
118.83	10.90	0.2835	-0.1583	0.2461	-0.0344	0.1990	-0.0466	0.1280	-0.0686
119.83	10.95	0.2835	-0.1583	0.2461	-0.0344	0.1989	-0.0467	0.1280	-0.0686
129.83	11.39	0.2833	-0.1585	0.2460	-0.0345	0.1988	-0.0468	0.1279	-0.0687
139.83	11.83	0.2829	-0.1589	0.2460	-0.0345	0.1987	-0.0469	0.1278	-0.0688
149.83	12.24	0.2827	-0.1591	0.2458	-0.0347	0.1987	-0.0469	0.1277	-0.0689
159.83	12.64	0.2826	-0.1592	0.2458	-0.0347	0.1986	-0.0470	0.1276	-0.0690
169.83	13.03	0.2825	-0.1593	0.2457	-0.0348	0.1986	-0.0470	0.1275	-0.0691
179.83	13.41	0.2824	-0.1594			0.1985	-0.0471	0.1275	-0.0691
189.83	13.78	0.2823	-0.1595			0.1985	-0.0471	0.1275	-0.0691
199.83	14.14	0.2822	-0.1596			0.1985	-0.0471	0.1274	-0.0692
209.83	14.49	0.2818	-0.1600			0.1985	-0.0471	0.1274	-0.0692
219.83	14.83	0.2817	-0.1601			0.1984	-0.0472	0.1273	-0.0693
229.83	15.16	0.2814	-0.1604			0.1984	-0.0472	0.1273	-0.0693
239.83	15.49	0.2811	-0.1607			0.1984	-0.0472	0.1273	-0.0693
249.83	15.81	0.2808	-0.1610			0.1984	-0.0472	0.1273	-0.0693
259.83	16.12	0.2808	-0.1610			0.1983	-0.0473	0.1273	-0.0693
269.83	16.43	0.2807	-0.1611			0.1983	-0.0473	0.1272	-0.0694
279.83	16.73	0.2807	-0.1611			0.1983	-0.0473	0.1272	-0.0694
289.83	17.02	0.2806	-0.1612			0.1982	-0.0474	0.1272	-0.0694
299.83	17.32	0.2806	-0.1612			0.1981	-0.0475	0.1272	-0.0694
309.83	17.60					0.1981	-0.0475	0.1272	-0.0694
319.83	17.88					0.1980	-0.0476	0.1272	-0.0694

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.1981	-0.0475	0.1272	-0.0694
339.83	18.43					0.1979	-0.0477	0.1272	-0.0694
349.83	18.70					0.1979	-0.0477		
359.83	18.97					0.1980	-0.0476		
369.83	19.23					0.1980	-0.0476		
379.83	19.49					0.1980	-0.0476		
389.83	19.74					0.1980	-0.0476		
399.83	20.00					0.1979	-0.0477		
409.83	20.24					0.1980	-0.0476		
419.83	20.49					0.1980	-0.0476		
429.83	20.73					0.1978	-0.0478		
439.83	20.97					0.1978	-0.0478		
449.83	21.21					0.1978	-0.0478		
459.83	21.44					0.1978	-0.0478		
469.83	21.68					0.1978	-0.0478		
479.83	21.91					0.1978	-0.0478		
489.83	22.13					0.1978	-0.0478		
499.83	22.36					0.1978	-0.0478		
509.83	22.58					0.1978	-0.0478		
519.83	22.80					0.1978	-0.0478		
529.83	23.02					0.1977	-0.0479		
539.83	23.23					0.1977	-0.0479		
549.83	23.45					0.1977	-0.0479		
559.83	23.66					0.1976	-0.0480		
569.83	23.87					0.1976	-0.0480		
579.83	24.08					0.1976	-0.0480		
589.83	24.29					0.1976	-0.0480		
599.83	24.49					0.1976	-0.0480		
609.83	24.69					0.1977	-0.0479		
619.83	24.90					0.1976	-0.0480		
629.83	25.10					0.1976	-0.0480		
639.83	25.29					0.1976	-0.0480		
649.83	25.49					0.1975	-0.0481		
659.83	25.69					0.1975	-0.0481		
669.83	25.88					0.1975	-0.0481		
679.83	26.07					0.1975	-0.0481		
689.83	26.26					0.1975	-0.0481		
699.83	26.45					0.1975	-0.0481		
709.83	26.64					0.1975	-0.0481		
719.83	26.83					0.1975	-0.0481		
749.83	27.38					0.1975	-0.0481		
779.83	27.93					0.1966	-0.0490		
809.83	28.46					0.1966	-0.0490		
839.83	28.98					0.1966	-0.0490		

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.1271	0.0000	0.4418	0.0000	0.3873	0.0000	0.3196	0.0000
0.17	0.41	0.1271	0.0000	0.4417	-0.0001	0.3873	0.0000	0.3307	0.0111
0.33	0.58	0.1222	-0.0049	0.4418	0.0000	0.3873	0.0000	0.3349	0.0153
0.50	0.71	0.1192	-0.0079	0.4363	-0.0055	0.3872	-0.0001	0.3067	-0.0129
0.67	0.82	0.1176	-0.0095	0.4325	-0.0093	0.3729	-0.0144	0.2990	-0.0206
0.83	0.91	0.1176	-0.0095	0.4307	-0.0111	0.3685	-0.0188	0.2911	-0.0285
1.00	1.00	0.1118	-0.0153	0.4307	-0.0111	0.3621	-0.0252	0.2869	-0.0327
1.17	1.08	0.1105	-0.0166	0.4307	-0.0111	0.3586	-0.0287	0.2840	-0.0356
1.33	1.15	0.1081	-0.0190	0.4307	-0.0111	0.3543	-0.0330	0.2795	-0.0401
1.50	1.22	0.1072	-0.0199	0.4186	-0.0232	0.3525	-0.0348	0.2773	-0.0423
1.67	1.29	0.1052	-0.0219	0.4166	-0.0252	0.3502	-0.0371	0.2745	-0.0451
1.83	1.35	0.1043	-0.0228	0.4150	-0.0268	0.3475	-0.0398	0.2732	-0.0464
2.00	1.41	0.1037	-0.0234	0.4131	-0.0287	0.3458	-0.0415	0.2732	-0.0464
2.17	1.47	0.1017	-0.0254	0.4120	-0.0298	0.3449	-0.0424	0.2732	-0.0464
2.33	1.53	0.1014	-0.0257	0.4110	-0.0308	0.3426	-0.0447	0.2691	-0.0505
2.50	1.58	0.1014	-0.0257	0.4096	-0.0322	0.3416	-0.0457	0.2683	-0.0513
2.67	1.63	0.0985	-0.0286	0.4086	-0.0332	0.3402	-0.0471	0.2678	-0.0518
2.83	1.68	0.0980	-0.0291	0.4075	-0.0343	0.3397	-0.0476	0.2668	-0.0528
3.00	1.73	0.0960	-0.0311	0.4067	-0.0351	0.3397	-0.0476	0.2662	-0.0534
3.17	1.78	0.0957	-0.0314	0.4059	-0.0359	0.3397	-0.0476	0.2656	-0.0540
3.33	1.83	0.0957	-0.0314	0.4051	-0.0367	0.3397	-0.0476	0.2650	-0.0546
3.50	1.87	0.0957	-0.0314	0.4043	-0.0375	0.3397	-0.0476	0.2648	-0.0548
3.67	1.91	0.0957	-0.0314	0.4039	-0.0379	0.3397	-0.0476	0.2642	-0.0554
3.83	1.96	0.0957	-0.0314	0.4034	-0.0384	0.3397	-0.0476	0.2641	-0.0555
4.00	2.00	0.0957	-0.0314	0.4034	-0.0384	0.3397	-0.0476	0.2641	-0.0555
4.17	2.04	0.0957	-0.0314	0.4034	-0.0384	0.3397	-0.0476	0.2641	-0.0555
4.33	2.08	0.0957	-0.0314	0.4034	-0.0384	0.3397	-0.0476	0.2628	-0.0568
4.50	2.12	0.0957	-0.0314	0.4034	-0.0384	0.3397	-0.0476	0.2628	-0.0568
4.67	2.16	0.0957	-0.0314	0.4011	-0.0407	0.3335	-0.0538	0.2628	-0.0568
4.83	2.20	0.0957	-0.0314	0.4008	-0.0410	0.3335	-0.0538	0.2620	-0.0576
5.00	2.24	0.0957	-0.0314	0.4005	-0.0413	0.3335	-0.0538	0.2617	-0.0579
5.17	2.27	0.0957	-0.0314	0.4002	-0.0416	0.3335	-0.0538	0.2615	-0.0581
5.33	2.31	0.0957	-0.0314	0.3998	-0.0420	0.3325	-0.0548	0.2615	-0.0581
5.50	2.35	0.0957	-0.0314	0.3997	-0.0421	0.3324	-0.0549	0.2615	-0.0581
5.67	2.38	0.0957	-0.0314	0.3995	-0.0423	0.3324	-0.0549	0.2615	-0.0581
5.83	2.42	0.0957	-0.0314	0.3992	-0.0426	0.3324	-0.0549	0.2615	-0.0581
6.00	2.45	0.0957	-0.0314	0.3990	-0.0428	0.3324	-0.0549	0.2605	-0.0591
6.17	2.48	0.0840	-0.0431	0.3988	-0.0430	0.3324	-0.0549	0.2605	-0.0591
6.33	2.52	0.0836	-0.0435	0.3988	-0.0430	0.3324	-0.0549	0.2603	-0.0593
6.50	2.55	0.0834	-0.0437	0.3988	-0.0430	0.3324	-0.0549	0.2603	-0.0593
6.67	2.58	0.0828	-0.0443	0.3988	-0.0430	0.3324	-0.0549	0.2600	-0.0596
6.83	2.61	0.0827	-0.0444	0.3988	-0.0430	0.3324	-0.0549	0.2600	-0.0596
7.00	2.65	0.0823	-0.0448	0.3979	-0.0439	0.3308	-0.0565	0.2600	-0.0596
7.17	2.68	0.0822	-0.0449	0.3977	-0.0441	0.3308	-0.0565	0.2600	-0.0596
7.33	2.71	0.0822	-0.0449	0.3976	-0.0442	0.3308	-0.0565	0.2600	-0.0596
7.50	2.74	0.0822	-0.0449	0.3974	-0.0444	0.3308	-0.0565	0.2600	-0.0596
7.67	2.77	0.0813	-0.0458	0.3972	-0.0446	0.3308	-0.0565	0.2600	-0.0596
7.83	2.80	0.0813	-0.0458	0.3972	-0.0446	0.3308	-0.0565	0.2600	-0.0596
8.00	2.83	0.0813	-0.0458	0.3971	-0.0447	0.3308	-0.0565	0.2600	-0.0596
8.17	2.86	0.0813	-0.0458	0.3969	-0.0449	0.3308	-0.0565	0.2600	-0.0596
8.33	2.89	0.0813	-0.0458	0.3968	-0.0450	0.3308	-0.0565	0.2600	-0.0596
8.50	2.92	0.0803	-0.0468	0.3967	-0.0451	0.3298	-0.0575	0.2587	-0.0609
8.67	2.94	0.0802	-0.0469	0.3965	-0.0453	0.3298	-0.0575	0.2587	-0.0609
8.83	2.97	0.0800	-0.0471	0.3964	-0.0454	0.3296	-0.0577	0.2586	-0.0610
9.00	3.00	0.0797	-0.0474	0.3963	-0.0455	0.3295	-0.0578	0.2585	-0.0611
9.17	3.03	0.0796	-0.0475	0.3963	-0.0455	0.3295	-0.0578	0.2585	-0.0611
9.33	3.06	0.0795	-0.0476	0.3962	-0.0456	0.3294	-0.0579	0.2583	-0.0613
9.50	3.08	0.0795	-0.0476	0.3961	-0.0457	0.3294	-0.0579	0.2583	-0.0613
9.67	3.11	0.0795	-0.0476	0.3960	-0.0458	0.3292	-0.0581	0.2581	-0.0615
9.83	3.14	0.0791	-0.0480	0.3959	-0.0459	0.3292	-0.0581	0.2581	-0.0615
10.00	3.16	0.0789	-0.0482	0.3958	-0.0460	0.3292	-0.0581	0.2581	-0.0615
10.17	3.19	0.0789	-0.0482	0.3957	-0.0461	0.3292	-0.0581	0.2581	-0.0615
10.33	3.21	0.0789	-0.0482	0.3957	-0.0461	0.3292	-0.0581	0.2581	-0.0615
10.50	3.24	0.0789	-0.0482	0.3956	-0.0462	0.3292	-0.0581	0.2581	-0.0615
10.67	3.27	0.0785	-0.0486	0.3955	-0.0463	0.3292	-0.0581	0.2581	-0.0615

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.0784	-0.0487	0.3954	-0.0464	0.3292	-0.0581	0.2581	-0.0615
11.00	3.32	0.0784	-0.0487	0.3954	-0.0464	0.3292	-0.0581	0.2581	-0.0615
11.17	3.34	0.0784	-0.0487	0.3953	-0.0465	0.3286	-0.0587	0.2581	-0.0615
11.33	3.37	0.0784	-0.0487	0.3953	-0.0465	0.3286	-0.0587	0.2581	-0.0615
11.50	3.39	0.0784	-0.0487	0.3952	-0.0466	0.3286	-0.0587	0.2581	-0.0615
11.67	3.42	0.0780	-0.0491	0.3951	-0.0467	0.3286	-0.0587	0.2581	-0.0615
11.83	3.44	0.0780	-0.0491	0.3950	-0.0468	0.3286	-0.0587	0.2581	-0.0615
12.00	3.46	0.0780	-0.0491	0.3950	-0.0468	0.3286	-0.0587	0.2581	-0.0615
12.17	3.49	0.0780	-0.0491	0.3949	-0.0469	0.3286	-0.0587	0.2581	-0.0615
12.33	3.51	0.0776	-0.0495	0.3949	-0.0469	0.3283	-0.0590	0.2581	-0.0615
12.50	3.54	0.0776	-0.0495	0.3948	-0.0470	0.3283	-0.0590	0.2581	-0.0615
12.67	3.56	0.0776	-0.0495	0.3948	-0.0470	0.3283	-0.0590	0.2581	-0.0615
12.83	3.58	0.0776	-0.0495	0.3947	-0.0471	0.3283	-0.0590	0.2581	-0.0615
13.00	3.61	0.0773	-0.0498	0.3947	-0.0471	0.3283	-0.0590	0.2581	-0.0615
13.17	3.63	0.0772	-0.0499	0.3946	-0.0472	0.3283	-0.0590	0.2581	-0.0615
13.33	3.65	0.0772	-0.0499	0.3946	-0.0472	0.3283	-0.0590	0.2581	-0.0615
13.50	3.67	0.0772	-0.0499	0.3946	-0.0472	0.3279	-0.0594	0.2581	-0.0615
13.67	3.70	0.0772	-0.0499	0.3946	-0.0472	0.3279	-0.0594	0.2568	-0.0628
13.83	3.72	0.0769	-0.0502	0.3945	-0.0473	0.3279	-0.0594	0.2567	-0.0629
14.00	3.74	0.0768	-0.0503	0.3945	-0.0473	0.3279	-0.0594	0.2567	-0.0629
14.17	3.76	0.0768	-0.0503	0.3943	-0.0475	0.3279	-0.0594	0.2567	-0.0629
14.33	3.79	0.0768	-0.0503	0.3943	-0.0475	0.3277	-0.0596	0.2567	-0.0629
14.50	3.81	0.0768	-0.0503	0.3943	-0.0475	0.3276	-0.0597	0.2565	-0.0631
14.67	3.83	0.0768	-0.0503	0.3942	-0.0476	0.3276	-0.0597	0.2564	-0.0632
14.83	3.85	0.0768	-0.0503	0.3942	-0.0476	0.3276	-0.0597	0.2564	-0.0632
15.33	3.92	0.0764	-0.0507	0.3940	-0.0478	0.3275	-0.0598	0.2563	-0.0633
15.83	3.98	0.0764	-0.0507	0.3939	-0.0479	0.3274	-0.0599	0.2562	-0.0634
16.33	4.04	0.0764	-0.0507	0.3938	-0.0480	0.3273	-0.0600	0.2561	-0.0635
16.83	4.10	0.0760	-0.0511	0.3937	-0.0481	0.3273	-0.0600	0.2561	-0.0635
17.33	4.16	0.0760	-0.0511	0.3937	-0.0481	0.3273	-0.0600	0.2560	-0.0636
17.83	4.22	0.0760	-0.0511	0.3936	-0.0482	0.3270	-0.0603	0.2560	-0.0636
18.33	4.28	0.0760	-0.0511	0.3935	-0.0483	0.3270	-0.0603	0.2557	-0.0639
18.83	4.34	0.0760	-0.0511	0.3934	-0.0484	0.3270	-0.0603	0.2557	-0.0639
19.33	4.40	0.0760	-0.0511	0.3934	-0.0484	0.3270	-0.0603	0.2555	-0.0641
19.83	4.45	0.0760	-0.0511	0.3932	-0.0486	0.3266	-0.0607	0.2555	-0.0641
20.33	4.51	0.0753	-0.0518	0.3932	-0.0486	0.3266	-0.0607	0.2553	-0.0643
20.83	4.56	0.0752	-0.0519	0.3931	-0.0487	0.3265	-0.0608	0.2552	-0.0644
21.33	4.62	0.0751	-0.0520	0.3930	-0.0488	0.3265	-0.0608	0.2552	-0.0644
21.83	4.67	0.0750	-0.0521	0.3929	-0.0489	0.3265	-0.0608	0.2552	-0.0644
22.33	4.73	0.0749	-0.0522	0.3929	-0.0489	0.3263	-0.0610	0.2552	-0.0644
22.83	4.78	0.0749	-0.0522	0.3928	-0.0490	0.3263	-0.0610	0.2550	-0.0646
23.33	4.83	0.0749	-0.0522	0.3928	-0.0490	0.3262	-0.0611	0.2550	-0.0646
23.83	4.88	0.0748	-0.0523	0.3928	-0.0490	0.3261	-0.0612	0.2549	-0.0647
24.33	4.93	0.0748	-0.0523	0.3927	-0.0491	0.3260	-0.0613	0.2548	-0.0648
24.83	4.98	0.0748	-0.0523	0.3927	-0.0491	0.3260	-0.0613	0.2548	-0.0648
25.33	5.03	0.0747	-0.0524	0.3926	-0.0492	0.3259	-0.0614	0.2547	-0.0649
25.83	5.08	0.0746	-0.0525	0.3926	-0.0492	0.3259	-0.0614	0.2546	-0.0650
26.33	5.13	0.0745	-0.0526	0.3925	-0.0493	0.3258	-0.0615	0.2546	-0.0650
26.83	5.18	0.0745	-0.0526	0.3925	-0.0493	0.3258	-0.0615	0.2545	-0.0651
27.33	5.23	0.0744	-0.0527	0.3924	-0.0494	0.3258	-0.0615	0.2545	-0.0651
27.83	5.28	0.0744	-0.0527	0.3924	-0.0494	0.3257	-0.0616	0.2544	-0.0652
28.33	5.32	0.0744	-0.0527	0.3923	-0.0495	0.3257	-0.0616	0.2543	-0.0653
28.83	5.37	0.0742	-0.0529	0.3922	-0.0496	0.3256	-0.0617	0.2543	-0.0653
29.33	5.42	0.0742	-0.0529	0.3922	-0.0496	0.3255	-0.0618	0.2543	-0.0653
29.83	5.46	0.0742	-0.0529	0.3922	-0.0496	0.3255	-0.0618	0.2542	-0.0654
30.33	5.51	0.0741	-0.0530	0.3921	-0.0497	0.3254	-0.0619	0.2542	-0.0654
30.83	5.55	0.0741	-0.0530	0.3920	-0.0498	0.3254	-0.0619	0.2542	-0.0654
31.33	5.60	0.0740	-0.0531	0.3920	-0.0498	0.3254	-0.0619	0.2541	-0.0655
31.83	5.64	0.0740	-0.0531	0.3920	-0.0498	0.3253	-0.0620	0.2541	-0.0655
32.33	5.69	0.0739	-0.0532	0.3919	-0.0499	0.3253	-0.0620	0.2540	-0.0656
32.83	5.73	0.0739	-0.0532	0.3919	-0.0499	0.3253	-0.0620	0.2540	-0.0656
33.33	5.77	0.0739	-0.0532	0.3919	-0.0499	0.3253	-0.0620	0.2539	-0.0657
33.83	5.82	0.0738	-0.0533	0.3919	-0.0499	0.3253	-0.0620	0.2539	-0.0657
34.33	5.86	0.0738	-0.0533	0.3919	-0.0499	0.3252	-0.0621	0.2538	-0.0658
34.83	5.90	0.0737	-0.0534	0.3918	-0.0500	0.3251	-0.0622	0.2538	-0.0658

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
35.33	5.94	0.0737	-0.0534	0.3918	-0.0500	0.3251	-0.0622	0.2537	-0.0659
35.83	5.99	0.0737	-0.0534	0.3918	-0.0500	0.3250	-0.0623	0.2537	-0.0659
36.33	6.03	0.0736	-0.0535	0.3917	-0.0501	0.3250	-0.0623	0.2537	-0.0659
36.83	6.07	0.0736	-0.0535	0.3917	-0.0501	0.3249	-0.0624	0.2536	-0.0660
37.33	6.11	0.0735	-0.0536	0.3917	-0.0501	0.3249	-0.0624	0.2536	-0.0660
37.83	6.15	0.0735	-0.0536	0.3916	-0.0502	0.3249	-0.0624	0.2535	-0.0661
38.33	6.19	0.0735	-0.0536	0.3916	-0.0502	0.3249	-0.0624	0.2535	-0.0661
38.83	6.23	0.0734	-0.0537	0.3916	-0.0502	0.3249	-0.0624	0.2535	-0.0661
39.33	6.27	0.0734	-0.0537	0.3916	-0.0502	0.3249	-0.0624	0.2535	-0.0661
39.83	6.31	0.0734	-0.0537	0.3915	-0.0503	0.3249	-0.0624	0.2535	-0.0661
40.33	6.35	0.0733	-0.0538	0.3914	-0.0504	0.3248	-0.0625	0.2535	-0.0661
40.83	6.39	0.0733	-0.0538	0.3914	-0.0504	0.3248	-0.0625	0.2534	-0.0662
41.33	6.43	0.0733	-0.0538	0.3914	-0.0504	0.3247	-0.0626	0.2534	-0.0662
41.83	6.47	0.0733	-0.0538	0.3914	-0.0504	0.3247	-0.0626	0.2534	-0.0662
42.33	6.51	0.0732	-0.0539	0.3913	-0.0505	0.3247	-0.0626	0.2533	-0.0663
42.83	6.54	0.0732	-0.0539	0.3913	-0.0505	0.3247	-0.0626	0.2533	-0.0663
43.33	6.58	0.0732	-0.0539	0.3913	-0.0505	0.3247	-0.0626	0.2533	-0.0663
43.83	6.62	0.0732	-0.0539	0.3913	-0.0505	0.3247	-0.0626	0.2532	-0.0664
44.33	6.66	0.0732	-0.0539	0.3912	-0.0506	0.3247	-0.0626	0.2532	-0.0664
44.83	6.70	0.0732	-0.0539	0.3912	-0.0506	0.3245	-0.0628	0.2532	-0.0664
45.33	6.73	0.0732	-0.0539	0.3912	-0.0506	0.3245	-0.0628	0.2531	-0.0665
45.83	6.77	0.0731	-0.0540	0.3912	-0.0506	0.3245	-0.0628	0.2531	-0.0665
46.33	6.81	0.0731	-0.0540	0.3912	-0.0506	0.3244	-0.0629	0.2531	-0.0665
46.83	6.84	0.0731	-0.0540	0.3912	-0.0506	0.3244	-0.0629	0.2531	-0.0665
47.33	6.88	0.0731	-0.0540	0.3911	-0.0507	0.3244	-0.0629	0.2530	-0.0666
47.83	6.92	0.0731	-0.0540	0.3911	-0.0507	0.3244	-0.0629	0.2530	-0.0666
48.33	6.95	0.0731	-0.0540	0.3911	-0.0507	0.3244	-0.0629	0.2530	-0.0666
48.83	6.99	0.0729	-0.0542	0.3911	-0.0507	0.3244	-0.0629	0.2529	-0.0667
49.33	7.02	0.0729	-0.0542	0.3911	-0.0507	0.3243	-0.0630	0.2529	-0.0667
49.83	7.06	0.0729	-0.0542	0.3911	-0.0507	0.3243	-0.0630	0.2528	-0.0668
50.33	7.09	0.0729	-0.0542	0.3911	-0.0507	0.3242	-0.0631	0.2528	-0.0668
50.83	7.13	0.0729	-0.0542	0.3911	-0.0507	0.3242	-0.0631	0.2528	-0.0668
51.33	7.16	0.0729	-0.0542	0.3911	-0.0507	0.3242	-0.0631	0.2528	-0.0668
51.83	7.20	0.0729	-0.0542	0.3910	-0.0508	0.3242	-0.0631	0.2527	-0.0669
52.33	7.23	0.0729	-0.0542	0.3910	-0.0508	0.3241	-0.0632	0.2527	-0.0669
52.83	7.27	0.0728	-0.0543	0.3910	-0.0508	0.3241	-0.0632	0.2527	-0.0669
53.33	7.30	0.0728	-0.0543	0.3910	-0.0508	0.3241	-0.0632	0.2527	-0.0669
53.83	7.34	0.0727	-0.0544	0.3909	-0.0509	0.3241	-0.0632	0.2526	-0.0670
54.33	7.37	0.0727	-0.0544	0.3909	-0.0509	0.3241	-0.0632	0.2526	-0.0670
54.83	7.40	0.0727	-0.0544	0.3909	-0.0509	0.3240	-0.0633	0.2526	-0.0670
55.33	7.44	0.0727	-0.0544	0.3909	-0.0509	0.3240	-0.0633	0.2526	-0.0670
55.83	7.47	0.0727	-0.0544	0.3909	-0.0509	0.3240	-0.0633	0.2526	-0.0670
56.33	7.51	0.0727	-0.0544	0.3908	-0.0510	0.3240	-0.0633	0.2526	-0.0670
56.83	7.54	0.0727	-0.0544	0.3908	-0.0510	0.3240	-0.0633	0.2526	-0.0670
57.33	7.57	0.0726	-0.0545	0.3908	-0.0510	0.3240	-0.0633	0.2526	-0.0670
57.83	7.60	0.0726	-0.0545	0.3908	-0.0510	0.3240	-0.0633	0.2525	-0.0671
58.33	7.64	0.0726	-0.0545	0.3908	-0.0510	0.3240	-0.0633	0.2525	-0.0671
58.83	7.67	0.0725	-0.0546	0.3907	-0.0511	0.3239	-0.0634	0.2525	-0.0671
59.33	7.70	0.0725	-0.0546	0.3907	-0.0511	0.3239	-0.0634	0.2525	-0.0671
59.83	7.74	0.0725	-0.0546	0.3907	-0.0511	0.3239	-0.0634	0.2524	-0.0672
60.83	7.80	0.0725	-0.0546	0.3907	-0.0511	0.3239	-0.0634	0.2524	-0.0672
61.83	7.86	0.0725	-0.0546	0.3906	-0.0512	0.3238	-0.0635	0.2523	-0.0673
62.83	7.93	0.0725	-0.0546	0.3906	-0.0512	0.3238	-0.0635	0.2523	-0.0673
63.83	7.99	0.0724	-0.0547	0.3906	-0.0512	0.3237	-0.0636	0.2523	-0.0673
64.83	8.05	0.0724	-0.0547	0.3906	-0.0512	0.3237	-0.0636	0.2522	-0.0674
65.83	8.11	0.0724	-0.0547	0.3905	-0.0513	0.3237	-0.0636	0.2522	-0.0674
66.83	8.18	0.0723	-0.0548	0.3905	-0.0513	0.3237	-0.0636	0.2521	-0.0675
67.83	8.24	0.0723	-0.0548	0.3905	-0.0513	0.3236	-0.0637	0.2521	-0.0675
68.83	8.30	0.0723	-0.0548	0.3905	-0.0513	0.3236	-0.0637	0.2521	-0.0675
69.83	8.36	0.0723	-0.0548	0.3904	-0.0514	0.3236	-0.0637	0.2520	-0.0676
70.83	8.42	0.0723	-0.0548	0.3903	-0.0515	0.3235	-0.0638	0.2520	-0.0676
71.83	8.48	0.0723	-0.0548	0.3903	-0.0515	0.3234	-0.0639	0.2520	-0.0676
72.83	8.53	0.0723	-0.0548	0.3903	-0.0515	0.3234	-0.0639	0.2519	-0.0677
73.83	8.59	0.0722	-0.0549	0.3903	-0.0515	0.3234	-0.0639	0.2519	-0.0677
74.83	8.65	0.0722	-0.0549	0.3902	-0.0516	0.3234	-0.0639	0.2519	-0.0677

Sample: Pond 12S, BH-3 @ 10.8 feet

Time 'minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.0722	-0.0549	0.3902	-0.0516	0.3233	-0.0640	0.2518	-0.0678
76.83	8.77	0.0722	-0.0549	0.3902	-0.0516	0.3233	-0.0640	0.2518	-0.0678
77.83	8.82	0.0722	-0.0549	0.3902	-0.0516	0.3233	-0.0640	0.2518	-0.0678
78.83	8.88	0.0721	-0.0550	0.3902	-0.0516	0.3233	-0.0640	0.2517	-0.0679
79.83	8.93	0.0721	-0.0550	0.3902	-0.0516	0.3233	-0.0640	0.2517	-0.0679
80.83	8.99	0.0721	-0.0550	0.3902	-0.0516	0.3232	-0.0641	0.2517	-0.0679
81.83	9.05	0.0721	-0.0550	0.3902	-0.0516	0.3232	-0.0641	0.2517	-0.0679
82.83	9.10	0.0721	-0.0550	0.3902	-0.0516	0.3232	-0.0641	0.2517	-0.0679
83.83	9.16	0.0720	-0.0551	0.3901	-0.0517	0.3232	-0.0641	0.2517	-0.0679
84.83	9.21	0.0720	-0.0551	0.3901	-0.0517	0.3230	-0.0643	0.2517	-0.0679
85.83	9.26	0.0720	-0.0551	0.3901	-0.0517	0.3232	-0.0641	0.2516	-0.0680
86.83	9.32	0.0720	-0.0551	0.3901	-0.0517	0.3231	-0.0642	0.2516	-0.0680
87.83	9.37	0.0719	-0.0552	0.3901	-0.0517	0.3231	-0.0642	0.2516	-0.0680
88.83	9.43	0.0719	-0.0552	0.3901	-0.0517	0.3231	-0.0642	0.2515	-0.0681
89.83	9.48	0.0719	-0.0552	0.3900	-0.0518	0.3230	-0.0643	0.2515	-0.0681
90.83	9.53	0.0718	-0.0553	0.3900	-0.0518	0.3230	-0.0643	0.2514	-0.0682
91.83	9.58	0.0718	-0.0553	0.3900	-0.0518	0.3230	-0.0643	0.2514	-0.0682
92.83	9.64	0.0718	-0.0553	0.3900	-0.0518	0.3230	-0.0643	0.2514	-0.0682
93.83	9.69	0.0718	-0.0553	0.3900	-0.0518	0.3230	-0.0643	0.2514	-0.0682
94.83	9.74	0.0718	-0.0553	0.3900	-0.0518	0.3229	-0.0644	0.2513	-0.0683
95.83	9.79	0.0718	-0.0553	0.3899	-0.0519	0.3229	-0.0644	0.2513	-0.0683
96.83	9.84	0.0717	-0.0554	0.3899	-0.0519	0.3229	-0.0644	0.2513	-0.0683
97.83	9.89	0.0717	-0.0554	0.3899	-0.0519	0.3229	-0.0644	0.2513	-0.0683
98.83	9.94	0.0717	-0.0554	0.3899	-0.0519	0.3228	-0.0645	0.2512	-0.0684
99.83	9.99	0.0717	-0.0554	0.3898	-0.0520	0.3228	-0.0645	0.2512	-0.0684
100.83	10.04	0.0717	-0.0554	0.3898	-0.0520	0.3228	-0.0645	0.2512	-0.0684
101.83	10.09	0.0717	-0.0554	0.3898	-0.0520	0.3228	-0.0645	0.2512	-0.0684
102.83	10.14	0.0716	-0.0555	0.3898	-0.0520	0.3228	-0.0645	0.2511	-0.0685
103.83	10.19	0.0716	-0.0555	0.3898	-0.0520	0.3228	-0.0645	0.2511	-0.0685
104.83	10.24	0.0716	-0.0555	0.3897	-0.0521	0.3228	-0.0645	0.2511	-0.0685
105.83	10.29	0.0716	-0.0555	0.3897	-0.0521	0.3227	-0.0646	0.2511	-0.0685
106.83	10.34	0.0716	-0.0555	0.3897	-0.0521	0.3227	-0.0646	0.2511	-0.0685
107.83	10.38	0.0715	-0.0556	0.3897	-0.0521	0.3227	-0.0646	0.2511	-0.0685
108.83	10.43	0.0715	-0.0556	0.3897	-0.0521	0.3227	-0.0646	0.2510	-0.0686
109.83	10.48	0.0715	-0.0556	0.3897	-0.0521	0.3227	-0.0646	0.2510	-0.0686
110.83	10.53	0.0715	-0.0556	0.3897	-0.0521	0.3226	-0.0647	0.2510	-0.0686
111.83	10.58	0.0715	-0.0556	0.3896	-0.0522	0.3226	-0.0647	0.2510	-0.0686
112.83	10.62	0.0715	-0.0556	0.3896	-0.0522	0.3226	-0.0647	0.2509	-0.0687
113.83	10.67	0.0715	-0.0556	0.3896	-0.0522	0.3226	-0.0647	0.2509	-0.0687
114.83	10.72	0.0715	-0.0556	0.3896	-0.0522	0.3220	-0.0653	0.2509	-0.0687
115.83	10.76	0.0715	-0.0556	0.3895	-0.0523	0.3225	-0.0648	0.2509	-0.0687
116.83	10.81	0.0715	-0.0556	0.3895	-0.0523	0.3225	-0.0648	0.2509	-0.0687
117.83	10.86	0.0715	-0.0556	0.3895	-0.0523	0.3225	-0.0648	0.2509	-0.0687
118.83	10.90	0.0715	-0.0556	0.3895	-0.0523	0.3225	-0.0648	0.2509	-0.0687
119.83	10.95	0.0715	-0.0556	0.3895	-0.0523	0.3225	-0.0648	0.2509	-0.0687
129.83	11.39	0.0713	-0.0558	0.3893	-0.0525	0.3223	-0.0650	0.2507	-0.0689
139.83	11.83	0.0713	-0.0558	0.3893	-0.0525	0.3222	-0.0651	0.2506	-0.0690
149.83	12.24	0.0712	-0.0559	0.3892	-0.0526	0.3221	-0.0652	0.2504	-0.0692
159.83	12.64	0.0711	-0.0560	0.3891	-0.0527	0.3220	-0.0653	0.2502	-0.0694
169.83	13.03	0.0710	-0.0561	0.3891	-0.0527	0.3218	-0.0655	0.2501	-0.0695
179.83	13.41	0.0709	-0.0562	0.3888	-0.0530	0.3218	-0.0655	0.2500	-0.0696
189.83	13.78	0.0708	-0.0563	0.3888	-0.0530	0.3217	-0.0656	0.2500	-0.0696
199.83	14.14	0.0707	-0.0564	0.3887	-0.0531	0.3215	-0.0658	0.2499	-0.0697
209.83	14.49	0.0707	-0.0564	0.3886	-0.0532	0.3214	-0.0659	0.2497	-0.0699
219.83	14.83	0.0706	-0.0565	0.3886	-0.0532	0.3214	-0.0659	0.2497	-0.0699
229.83	15.16	0.0705	-0.0566	0.3886	-0.0532	0.3214	-0.0659	0.2496	-0.0700
239.83	15.49	0.0705	-0.0566	0.3885	-0.0533	0.3213	-0.0660	0.2495	-0.0701
249.83	15.81	0.0705	-0.0566	0.3885	-0.0533	0.3213	-0.0660	0.2494	-0.0702
259.83	16.12	0.0704	-0.0567	0.3884	-0.0534	0.3212	-0.0661	0.2494	-0.0702
269.83	16.43	0.0704	-0.0567	0.3884	-0.0534	0.3211	-0.0662	0.2493	-0.0703
279.83	16.73	0.0703	-0.0568	0.3883	-0.0535	0.3210	-0.0663	0.2492	-0.0704
289.83	17.02	0.0703	-0.0568	0.3882	-0.0536	0.3209	-0.0664	0.2491	-0.0705
299.83	17.32	0.0703	-0.0568	0.3882	-0.0536	0.3209	-0.0664	0.2491	-0.0705
309.83	17.60	0.0702	-0.0569	0.3880	-0.0538	0.3208	-0.0665	0.2491	-0.0705
319.83	17.88	0.0702	-0.0569	0.3880	-0.0538	0.3208	-0.0665	0.2490	-0.0706

Sample: Pond 12S, BH-3 @ 10.8 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.0702	-0.0569	0.3879	-0.0539	0.3207	-0.0666	0.2489	-0.0707
339.83	18.43	0.0701	-0.0570	0.3879	-0.0539	0.3207	-0.0666	0.2488	-0.0708
349.83	18.70	0.0701	-0.0570	0.3878	-0.0540	0.3207	-0.0666	0.2488	-0.0708
359.83	18.97	0.0700	-0.0571	0.3878	-0.0540	0.3207	-0.0666	0.2487	-0.0709
369.83	19.23	0.0700	-0.0571	0.3877	-0.0541	0.3207	-0.0666	0.2486	-0.0710
379.83	19.49	0.0700	-0.0571	0.3877	-0.0541	0.3207	-0.0666	0.2486	-0.0710
389.83	19.74	0.0700	-0.0571	0.3876	-0.0542	0.3206	-0.0667	0.2485	-0.0711
399.83	20.00	0.0700	-0.0571	0.3876	-0.0542	0.3206	-0.0667	0.2485	-0.0711
409.83	20.24	0.0699	-0.0572	0.3875	-0.0543	0.3205	-0.0668	0.2484	-0.0712
419.83	20.49	0.0699	-0.0572	0.3874	-0.0544	0.3205	-0.0668	0.2483	-0.0713
429.83	20.73	0.0699	-0.0572	0.3874	-0.0544	0.3205	-0.0668	0.2482	-0.0714
439.83	20.97	0.0699	-0.0572	0.3873	-0.0545	0.3205	-0.0668	0.2482	-0.0714
449.83	21.21	0.0699	-0.0572			0.3205	-0.0668	0.2482	-0.0714
459.83	21.44	0.0698	-0.0573			0.3204	-0.0669	0.2481	-0.0715
469.83	21.68	0.0698	-0.0573			0.3205	-0.0668	0.2481	-0.0715
479.83	21.91	0.0698	-0.0573			0.3205	-0.0668	0.2481	-0.0715
489.83	22.13	0.0698	-0.0573			0.3204	-0.0669	0.2480	-0.0716
499.83	22.36	0.0697	-0.0574			0.3200	-0.0673	0.2480	-0.0716
509.83	22.58	0.0697	-0.0574			0.3204	-0.0669	0.2479	-0.0717
519.83	22.80	0.0697	-0.0574			0.3204	-0.0669	0.2478	-0.0718
529.83	23.02	0.0697	-0.0574			0.3204	-0.0669	0.2478	-0.0718
539.83	23.23	0.0697	-0.0574			0.3204	-0.0669	0.2478	-0.0718
549.83	23.45	0.0697	-0.0574			0.3204	-0.0669	0.2477	-0.0719
559.83	23.66	0.0697	-0.0574			0.3204	-0.0669	0.2476	-0.0720
569.83	23.87	0.0697	-0.0574			0.3204	-0.0669	0.2476	-0.0720
579.83	24.08	0.0697	-0.0574			0.3203	-0.0670	0.2476	-0.0720
589.83	24.29	0.0697	-0.0574			0.3202	-0.0671	0.2475	-0.0721
599.83	24.49	0.0697	-0.0574			0.3202	-0.0671	0.2475	-0.0721
609.83	24.69	0.0697	-0.0574			0.3202	-0.0671	0.2474	-0.0722
619.83	24.90	0.0697	-0.0574			0.3203	-0.0670	0.2474	-0.0722
629.83	25.10	0.0697	-0.0574			0.3202	-0.0671	0.2474	-0.0722
639.83	25.29	0.0697	-0.0574			0.3202	-0.0671	0.2474	-0.0722
649.83	25.49	0.0697	-0.0574			0.3201	-0.0672	0.2474	-0.0722
659.83	25.69	0.0697	-0.0574			0.3201	-0.0672	0.2474	-0.0722
669.83	25.88	0.0697	-0.0574			0.3201	-0.0672	0.2474	-0.0722
679.83	26.07	0.0697	-0.0574			0.3201	-0.0672	0.2474	-0.0722
689.83	26.26	0.0696	-0.0575			0.3201	-0.0672	0.2473	-0.0723
699.83	26.45	0.0697	-0.0574			0.3201	-0.0672	0.2473	-0.0723
709.83	26.64	0.0697	-0.0574			0.3201	-0.0672	0.2473	-0.0723
719.83	26.83	0.0697	-0.0574			0.3200	-0.0673	0.2473	-0.0723
749.83	27.38	0.0697	-0.0574			0.3200	-0.0673	0.2472	-0.0724
779.83	27.93	0.0696	-0.0575			0.3200	-0.0673	0.2472	-0.0724
809.83	28.46	0.0695	-0.0576			0.3200	-0.0673	0.2471	-0.0725
839.83	28.98	0.0695	-0.0576			0.3200	-0.0673	0.2470	-0.0726
869.83	29.49	0.0695	-0.0576			0.3199	-0.0674	0.2470	-0.0726
899.83	30.00	0.0694	-0.0577			0.3199	-0.0674	0.2470	-0.0726
929.83	30.49	0.0693	-0.0578			0.3198	-0.0675	0.2469	-0.0727
959.83	30.98	0.0694	-0.0577			0.3198	-0.0675	0.2469	-0.0727
989.83	31.46	0.0694	-0.0577			0.3198	-0.0675	0.2468	-0.0728
1019.83	31.93	0.0693	-0.0578			0.3197	-0.0676	0.2468	-0.0728
1049.83	32.40	0.0692	-0.0579			0.3197	-0.0676	0.2467	-0.0729
1079.83	32.86					0.3197	-0.0676	0.2467	-0.0729
1109.83	33.31					0.3196	-0.0677	0.2467	-0.0729
1139.83	33.76							0.2466	-0.0730
1169.83	34.20							0.2465	-0.0731
1199.83	34.64							0.2465	-0.0731
1229.83	35.07							0.2465	-0.0731
1259.83	35.49							0.2465	-0.0731
1289.83	35.91							0.2465	-0.0731

One Dimensional Consolidation

Project No.	973376
Project	FMC
Sample ID	Pond 13S, BH-3 @ 14.5 feet
<hr/>	
Sample Ht.	1.813 (in)
Sample Dia.	4.000 (in)
Sample Area	0.087 (sq-ft)
Sample Vol.	0.013 (cu-ft)
Phos Cont.	2.8 (%)
Init. M.C.	262.91 (%)
Init. M.C. (corr)	229.44 (%)
Final M.C.	117.17 (%)
Final M.C. (corr)	104.73 (%)
Dry Wt. of Soil/f	206.04 (g)
Dry Wt. of Soil/i	140.76 (g)
Spec. Grav.	2.79
Pocket Pen.	(tsf)

Moisture Content Weights	
(initial)	
Total Wet Wt. (g)	28.67
Phos. Wt. (g)	0.80
Dry Wt. (g)	7.9
Dry Wt. + Phos Wt. (g)	8.70
Water Wt. + Phos (g)	20.77
Water Wt. (g)	19.97
(final)	
Total Wet Wt. (g)	29.21
Phos. Wt. (g)	0.82
Dry Wt. (g)	13.45
Dry Wt. + Phos Wt. (g)	14.27
Water Wt. + Phos (g)	15.76
Water Wt. (g)	14.94

Pressure (ksf)	Final Dial Reading (inches)	Deformation (inches)	Sample Ht. (inches)	Strain (%)	Void Ratio (e)	Dry	Void Ratio (e)	Dry
						Density (pcf)		
						Calc. from final MC	Calc. from initial MC	
0.0010	0.4437	0.0000	1.8125	0	4.056	34.43	6.401	23.52
0.0250	0.4409	0.0028	1.8097	0.15	4.049	34.48	6.390	23.56
0.0500	0.4385	0.0050	1.8075	0.28	4.042	34.53	6.381	23.59
0.1000	0.4061	0.0308	1.7817	1.70	3.971	35.03	6.275	23.93
0.2500	0.3256	0.0951	1.7174	5.25	3.791	36.34	6.013	24.83
0.5000	0.2426	0.1780	1.6345	9.82	3.560	38.18	5.674	26.08
1.0000	0.1428	0.2728	1.5397	15.05	3.295	40.53	5.287	27.69
2.0000	0.1426	0.2729	1.5396	15.06	3.295	40.53	5.287	27.69
4.0000	0.3098	0.4067	1.4058	22.44	2.922	44.39	4.741	30.33

Note:

Initial MC not taken from actual sample tested, but from same sample jar.

Final MC taken from actual sample tested.

Void Ratio (e), calculated from final MC likely to be most accurate.

Final data readings may vary when compared to deformation values due to resetting the dial. The deformation values are based on the actual data in Appendix E.

Sample: Pond 13S, BH-3 @ 14.5 feet

Time 'minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.4437	0.0000	0.4407	0.0000	0.4319	0.0000	0.3899	0.0000
0.17	0.41	0.4437	0.0000	0.4407	0.0000	0.4319	0.0000	0.3899	0.0000
0.33	0.58	0.4437	0.0000	0.4402	-0.0005	0.4237	-0.0082	0.3864	-0.0035
0.50	0.71	0.4437	0.0000	0.4398	-0.0009	0.4237	-0.0082	0.3824	-0.0075
0.67	0.82	0.4437	0.0000	0.4396	-0.0011	0.4237	-0.0082	0.3804	-0.0095
0.83	0.91	0.4437	0.0000	0.4394	-0.0013	0.4202	-0.0117	0.3775	-0.0124
1.00	1.00	0.4437	0.0000	0.4394	-0.0013	0.4195	-0.0124	0.3759	-0.0140
1.17	1.08	0.4437	0.0000	0.4392	-0.0015	0.4185	-0.0134	0.3759	-0.0140
1.33	1.15	0.4437	0.0000	0.4391	-0.0016	0.4178	-0.0141	0.3759	-0.0140
1.50	1.22	0.4437	0.0000	0.4390	-0.0017	0.4170	-0.0149	0.3703	-0.0196
1.67	1.29	0.4437	0.0000	0.4389	-0.0018	0.4164	-0.0155	0.3681	-0.0218
1.83	1.35	0.4437	0.0000	0.4388	-0.0019	0.4157	-0.0162	0.3670	-0.0229
2.00	1.41	0.4437	0.0000	0.4388	-0.0019	0.4151	-0.0168	0.3658	-0.0241
2.17	1.47	0.4437	0.0000	0.4387	-0.0020	0.4151	-0.0168	0.3639	-0.0260
2.33	1.53	0.4437	0.0000	0.4386	-0.0021	0.4151	-0.0168	0.3628	-0.0271
2.50	1.58	0.4437	0.0000	0.4385	-0.0022	0.4132	-0.0187	0.3613	-0.0286
2.67	1.63	0.4437	0.0000	0.4385	-0.0022	0.4128	-0.0191	0.3602	-0.0297
2.83	1.68	0.4437	0.0000	0.4385	-0.0022	0.4120	-0.0199	0.3602	-0.0297
3.00	1.73	0.4437	0.0000	0.4385	-0.0022	0.4116	-0.0203	0.3602	-0.0297
3.17	1.78	0.4437	0.0000	0.4385	-0.0022	0.4110	-0.0209	0.3570	-0.0329
3.33	1.83	0.4437	0.0000	0.4385	-0.0022	0.4106	-0.0213	0.3558	-0.0341
3.50	1.87	0.4437	0.0000	0.4385	-0.0022	0.4101	-0.0218	0.3550	-0.0349
3.67	1.91	0.4437	0.0000	0.4385	-0.0022	0.4098	-0.0221	0.3544	-0.0355
3.83	1.96	0.4437	0.0000	0.4385	-0.0022	0.4098	-0.0221	0.3532	-0.0367
4.00	2.00	0.4437	0.0000	0.4385	-0.0022	0.4088	-0.0231	0.3524	-0.0375
4.17	2.04	0.4437	0.0000	0.4385	-0.0022	0.4084	-0.0235	0.3514	-0.0385
4.33	2.08	0.4437	0.0000	0.4385	-0.0022	0.4082	-0.0237	0.3513	-0.0386
4.50	2.12	0.4437	0.0000	0.4385	-0.0022	0.4076	-0.0243	0.3513	-0.0386
4.67	2.16	0.4437	0.0000	0.4385	-0.0022	0.4074	-0.0245	0.3513	-0.0386
4.83	2.20	0.4437	0.0000	0.4385	-0.0022	0.4069	-0.0250	0.3490	-0.0409
5.00	2.24	0.4437	0.0000	0.4385	-0.0022	0.4066	-0.0253	0.3483	-0.0416
5.17	2.27	0.4437	0.0000	0.4385	-0.0022	0.4064	-0.0255	0.3478	-0.0421
5.33	2.31	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3474	-0.0425
5.50	2.35	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3467	-0.0432
5.67	2.38	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3462	-0.0437
5.83	2.42	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3457	-0.0442
6.00	2.45	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
6.17	2.48	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
6.33	2.52	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
6.50	2.55	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
6.67	2.58	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
6.83	2.61	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.00	2.65	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.17	2.68	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.33	2.71	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.50	2.74	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.67	2.77	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
7.83	2.80	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.00	2.83	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.17	2.86	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.33	2.89	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.50	2.92	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.67	2.94	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
8.83	2.97	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.00	3.00	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.17	3.03	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.33	3.06	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.50	3.08	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.67	3.11	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
9.83	3.14	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
10.00	3.16	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
10.17	3.19	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
10.33	3.21	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
10.50	3.24	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444
10.67	3.27	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3455	-0.0444

Sample: Pond 13S, BH-3 @ 14.5 feet

Sample: Pond 13S, BH-3 @ 14.5 feet

Sample: Pond 13S, BH-3 @ 14.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
75.83	8.71	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
76.83	8.77	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
77.83	8.82	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
78.83	8.88	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
79.83	8.93	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
80.83	8.99	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
81.83	9.05	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
82.83	9.10	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
83.83	9.16	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
84.83	9.21	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
85.83	9.26	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
86.83	9.32	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
87.83	9.37	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
88.83	9.43	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
89.83	9.48	0.4437	0.0000	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
90.83	9.53	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
91.83	9.58	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
92.83	9.64	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
93.83	9.69	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
94.83	9.74	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
95.83	9.79	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
96.83	9.84	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
97.83	9.89	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
98.83	9.94	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
99.83	9.99	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
100.83	10.04	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
101.83	10.09	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
102.83	10.14	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
103.83	10.19	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
104.83	10.24	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
105.83	10.29	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
106.83	10.34	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
107.83	10.38	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
108.83	10.43	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
109.83	10.48	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
110.83	10.53	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
111.83	10.58	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
112.83	10.62	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
113.83	10.67	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
114.83	10.72	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
115.83	10.76	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
116.83	10.81	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
117.83	10.86	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
118.83	10.90	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
119.83	10.95	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
129.83	11.39	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
139.83	11.83	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
149.83	12.24	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
159.83	12.64	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
169.83	13.03	0.4409	-0.0028	0.4385	-0.0022	0.4061	-0.0258	0.3379	-0.0520
179.83	13.41	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
189.83	13.78	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
199.83	14.14	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
209.83	14.49	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
219.83	14.83	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
229.83	15.16	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
239.83	15.49	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
249.83	15.81	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
259.83	16.12	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
269.83	16.43	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
279.83	16.73	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
289.83	17.02	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
299.83	17.32	0.4409	-0.0028			0.4061	-0.0258	0.3379	-0.0520
309.83	17.60					0.4061	-0.0258	0.3379	-0.0520
319.83	17.88					0.4061	-0.0258	0.3379	-0.0520

Sample: Pond 13S, BH-3 @ 14.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 1 @ 25 psf		Test 2 @ 50 psf		Test 3 @ 100 psf		Test 4 @ 250 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16					0.4061	-0.0258	0.3379	-0.0520
339.83	18.43					0.4061	-0.0258	0.3379	-0.0520
349.83	18.70					0.4061	-0.0258	0.3256	-0.0643
359.83	18.97					0.4061	-0.0258	0.3256	-0.0643
369.83	19.23					0.4061	-0.0258	0.3256	-0.0643
379.83	19.49					0.4061	-0.0258		
389.83	19.74					0.4061	-0.0258		
399.83	20.00					0.4061	-0.0258		
409.83	20.24					0.4061	-0.0258		
419.83	20.49					0.4061	-0.0258		
429.83	20.73					0.4061	-0.0258		
439.83	20.97					0.4061	-0.0258		
449.83	21.21					0.4061	-0.0258		
459.83	21.44					0.4061	-0.0258		
469.83	21.68					0.4061	-0.0258		
479.83	21.91					0.4061	-0.0258		
489.83	22.13					0.4061	-0.0258		
499.83	22.36					0.4061	-0.0258		
509.83	22.58					0.4061	-0.0258		
519.83	22.80					0.4061	-0.0258		
529.83	23.02					0.4061	-0.0258		
539.83	23.23					0.4061	-0.0258		
549.83	23.45					0.4061	-0.0258		
559.83	23.66					0.4061	-0.0258		
569.83	23.87					0.4061	-0.0258		
579.83	24.08					0.4061	-0.0258		
589.83	24.29					0.4061	-0.0258		
599.83	24.49					0.4061	-0.0258		
609.83	24.69					0.4061	-0.0258		
619.83	24.90					0.4061	-0.0258		
629.83	25.10					0.4061	-0.0258		
639.83	25.29					0.4061	-0.0258		
649.83	25.49					0.4061	-0.0258		
659.83	25.69					0.4061	-0.0258		
669.83	25.88					0.4061	-0.0258		
679.83	26.07					0.4061	-0.0258		
689.83	26.26					0.4061	-0.0258		
699.83	26.45					0.4061	-0.0258		
709.83	26.64					0.4061	-0.0258		
719.83	26.83					0.4061	-0.0258		
749.83	27.38					0.4061	-0.0258		
779.83	27.93					0.4061	-0.0258		
809.83	28.46					0.4061	-0.0258		
839.83	28.98					0.4061	-0.0258		

Sample: Pond 13S, BH-3 @ 14.5 feet

Time minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
0.00	0.00	0.3255	0.0000	0.2367	0.0000	0.1427	0.0000	0.4436	0.0000
0.17	0.41	0.3255	0.0000	0.2367	0.0000	0.1427	0.0000	0.4436	0.0000
0.33	0.58	0.3255	0.0000	0.2367	0.0000	0.1427	0.0000	0.4437	0.0001
0.50	0.71	0.3189	-0.0066	0.2367	0.0000	0.1426	-0.0001	0.4357	-0.0079
0.67	0.82	0.3143	-0.0112	0.2367	0.0000	0.1426	-0.0001	0.4132	-0.0304
0.83	0.91	0.3081	-0.0174	0.2367	0.0000	0.1426	-0.0001	0.3982	-0.0454
1.00	1.00	0.3050	-0.0205	0.2030	-0.0337	0.1426	-0.0001	0.3982	-0.0454
1.17	1.08	0.3020	-0.0235	0.1986	-0.0381	0.1426	-0.0001	0.3982	-0.0454
1.33	1.15	0.2988	-0.0267	0.1955	-0.0412	0.1426	-0.0001	0.3666	-0.0770
1.50	1.22	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3616	-0.0820
1.67	1.29	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3559	-0.0877
1.83	1.35	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3528	-0.0908
2.00	1.41	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3528	-0.0908
2.17	1.47	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3484	-0.0952
2.33	1.53	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3474	-0.0962
2.50	1.58	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3454	-0.0982
2.67	1.63	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3438	-0.0998
2.83	1.68	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3423	-0.1013
3.00	1.73	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
3.17	1.78	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
3.33	1.83	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
3.50	1.87	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
3.67	1.91	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
3.83	1.96	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.00	2.00	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.17	2.04	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.33	2.08	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.50	2.12	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.67	2.16	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
4.83	2.20	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.00	2.24	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.17	2.27	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.33	2.31	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.50	2.35	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.67	2.38	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
5.83	2.42	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.00	2.45	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.17	2.48	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.33	2.52	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.50	2.55	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.67	2.58	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
6.83	2.61	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.00	2.65	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.17	2.68	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.33	2.71	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.50	2.74	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.67	2.77	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
7.83	2.80	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.00	2.83	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.17	2.86	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.33	2.89	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.50	2.92	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.67	2.94	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
8.83	2.97	0.2961	-0.0294	0.1923	-0.0444	0.1426	-0.0001	0.3412	-0.1024
9.00	3.00	0.2961	-0.0294	0.1601	-0.0766	0.1426	-0.0001	0.3412	-0.1024
9.17	3.03	0.2961	-0.0294	0.1600	-0.0767	0.1426	-0.0001	0.3412	-0.1024
9.33	3.06	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
9.50	3.08	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
9.67	3.11	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
9.83	3.14	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
10.00	3.16	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
10.17	3.19	0.2961	-0.0294	0.1598	-0.0769	0.1426	-0.0001	0.3412	-0.1024
10.33	3.21	0.2961	-0.0294	0.1591	-0.0776	0.1426	-0.0001	0.3412	-0.1024
10.50	3.24	0.2553	-0.0702	0.1590	-0.0777	0.1426	-0.0001	0.3412	-0.1024
10.67	3.27	0.2552	-0.0703	0.1589	-0.0778	0.1426	-0.0001	0.3412	-0.1024

Sample: Pond 13S, BH-3 @ 14.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
10.83	3.29	0.2550	-0.0705	0.1588	-0.0779	0.1426	-0.0001	0.3412	-0.1024
11.00	3.32	0.2550	-0.0705	0.1587	-0.0780	0.1426	-0.0001	0.3412	-0.1024
11.17	3.34	0.2550	-0.0705	0.1586	-0.0781	0.1426	-0.0001	0.3412	-0.1024
11.33	3.37	0.2550	-0.0705	0.1585	-0.0782	0.1426	-0.0001	0.3412	-0.1024
11.50	3.39	0.2550	-0.0705	0.1584	-0.0783	0.1426	-0.0001	0.3412	-0.1024
11.67	3.42	0.2550	-0.0705	0.1583	-0.0784	0.1426	-0.0001	0.3412	-0.1024
11.83	3.44	0.2550	-0.0705	0.1582	-0.0785	0.1426	-0.0001	0.3412	-0.1024
12.00	3.46	0.2550	-0.0705	0.1581	-0.0786	0.1426	-0.0001	0.3412	-0.1024
12.17	3.49	0.2550	-0.0705	0.1580	-0.0787	0.1426	-0.0001	0.3412	-0.1024
12.33	3.51	0.2550	-0.0705	0.1579	-0.0788	0.1426	-0.0001	0.3412	-0.1024
12.50	3.54	0.2550	-0.0705	0.1578	-0.0789	0.1426	-0.0001	0.3412	-0.1024
12.67	3.56	0.2550	-0.0705	0.1577	-0.0790	0.1426	-0.0001	0.3412	-0.1024
12.83	3.58	0.2550	-0.0705	0.1577	-0.0790	0.1426	-0.0001	0.3412	-0.1024
13.00	3.61	0.2550	-0.0705	0.1577	-0.0790	0.1426	-0.0001	0.3412	-0.1024
13.17	3.63	0.2550	-0.0705	0.1577	-0.0790	0.1426	-0.0001	0.3412	-0.1024
13.33	3.65	0.2550	-0.0705	0.1574	-0.0793	0.1426	-0.0001	0.3412	-0.1024
13.50	3.67	0.2550	-0.0705	0.1574	-0.0793	0.1426	-0.0001	0.3412	-0.1024
13.67	3.70	0.2550	-0.0705	0.1573	-0.0794	0.1426	-0.0001	0.3412	-0.1024
13.83	3.72	0.2550	-0.0705	0.1572	-0.0795	0.1426	-0.0001	0.3412	-0.1024
14.00	3.74	0.2550	-0.0705	0.1571	-0.0796	0.1426	-0.0001	0.3412	-0.1024
14.17	3.76	0.2550	-0.0705	0.1571	-0.0796	0.1426	-0.0001	0.3412	-0.1024
14.33	3.79	0.2550	-0.0705	0.1569	-0.0798	0.1426	-0.0001	0.3412	-0.1024
14.50	3.81	0.2550	-0.0705	0.1568	-0.0799	0.1426	-0.0001	0.3412	-0.1024
14.67	3.83	0.2550	-0.0705	0.1568	-0.0799	0.1426	-0.0001	0.3412	-0.1024
14.83	3.85	0.2550	-0.0705	0.1567	-0.0800	0.1426	-0.0001	0.3412	-0.1024
15.33	3.92	0.2550	-0.0705	0.1566	-0.0801	0.1426	-0.0001	0.3412	-0.1024
15.83	3.98	0.2550	-0.0705	0.1564	-0.0803	0.1426	-0.0001	0.3412	-0.1024
16.33	4.04	0.2550	-0.0705	0.1562	-0.0805	0.1426	-0.0001	0.3412	-0.1024
16.83	4.10	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
17.33	4.16	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
17.83	4.22	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
18.33	4.28	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
18.83	4.34	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
19.33	4.40	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
19.83	4.45	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
20.33	4.51	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
20.83	4.56	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
21.33	4.62	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
21.83	4.67	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
22.33	4.73	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
22.83	4.78	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
23.33	4.83	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
23.83	4.88	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
24.33	4.93	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
24.83	4.98	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
25.33	5.03	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
25.83	5.08	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
26.33	5.13	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
26.83	5.18	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
27.33	5.23	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
27.83	5.28	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
28.33	5.32	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
28.83	5.37	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
29.33	5.42	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
29.83	5.46	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
30.33	5.51	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
30.83	5.55	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
31.33	5.60	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
31.83	5.64	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
32.33	5.69	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
32.83	5.73	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
33.33	5.77	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
33.83	5.82	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
34.33	5.86	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024
34.83	5.90	0.2550	-0.0705	0.1560	-0.0807	0.1426	-0.0001	0.3412	-0.1024

Sample: Pond 13S, BH-3 @ 14.5 feet

Sample: Pond 13S, BH-3 @ 14.5 feet

Sample: Pond 13S, BH-3 @ 14.5 feet

Time (minutes)	Square Root of Time (minutes)	Test 5 @ 500 psf		Test 6 @ 1000 psf		Test 7 @ 2000 psf		Test 8 @ 4000 psf	
		Dial Reading (inches)	Deflection (inches)						
329.83	18.16	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
339.83	18.43	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
349.83	18.70	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
359.83	18.97	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
369.83	19.23	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
379.83	19.49	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
389.83	19.74	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
399.83	20.00	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
409.83	20.24	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
419.83	20.49	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
429.83	20.73	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
439.83	20.97	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
449.83	21.21	0.2426	-0.0829	0.1489	-0.0878	0.1426	-0.0001	0.3181	-0.1255
459.83	21.44	0.2426	-0.0829	0.1436	-0.0931	0.1426	-0.0001	0.3181	-0.1255
469.83	21.68	0.2426	-0.0829	0.1436	-0.0931	0.1426	-0.0001	0.3181	-0.1255
479.83	21.91	0.2426	-0.0829	0.1436	-0.0931	0.1426	-0.0001	0.3181	-0.1255
489.83	22.13	0.2426	-0.0829	0.1400	-0.0967	0.1426	-0.0001	0.3181	-0.1255
499.83	22.36	0.2426	-0.0829	0.1400	-0.0967	0.1426	-0.0001	0.3181	-0.1255
509.83	22.58	0.2426	-0.0829	0.1400	-0.0967	0.1426	-0.0001	0.3181	-0.1255
519.83	22.80	0.2426	-0.0829	0.1400	-0.0967	0.1426	-0.0001	0.3181	-0.1255
529.83	23.02	0.2426	-0.0829	0.1400	-0.0967	0.1426	-0.0001	0.3181	-0.1255
539.83	23.23	0.2426	-0.0829	0.1428	-0.0939	0.1426	-0.0001	0.3181	-0.1255
549.83	23.45	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
559.83	23.66	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
569.83	23.87	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
579.83	24.08	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
589.83	24.29	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
599.83	24.49	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
609.83	24.69	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
619.83	24.90	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
629.83	25.10	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
639.83	25.29	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
649.83	25.49	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
659.83	25.69	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
669.83	25.88	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
679.83	26.07	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
689.83	26.26	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
699.83	26.45	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
709.83	26.64	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
719.83	26.83	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
749.83	27.38	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
779.83	27.93	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
809.83	28.46	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
839.83	28.98	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
869.83	29.49	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
899.83	30.00	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
929.83	30.49	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
959.83	30.98	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
989.83	31.46	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
1019.83	31.93	0.2426	-0.0829			0.1426	-0.0001	0.3181	-0.1255
1049.83	32.40							0.3181	-0.1255
1079.83	32.86							0.3181	-0.1255
1109.83	33.31							0.3181	-0.1255
1139.83	33.76							0.3181	-0.1255
1169.83	34.20							0.3181	-0.1255
1199.83	34.64							0.3181	-0.1255
1229.83	35.07							0.3181	-0.1255
1259.83	35.49							0.3181	-0.1255
1289.83	35.91							0.3181	-0.1255
1319.83	36.33							0.3098	-0.1338